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**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

ROOFERS' PENSION FUND, Individually  
and On Behalf of All Others Similarly  
Situated,

Plaintiffs,

v.

JOSEPH C. PAPA, *et al.*,

Defendants.

Case No. 2:16-cv-02805-  
MCA LDW

**EXPERT REPORT OF PAUL A. GOMPERS**

**April 17, 2019**

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**I. Qualifications**

1. I am the Eugene Holman Professor of Business Administration at the Harvard Business School. I teach courses and conduct research in corporate finance, the structure and governance of public and private companies, valuation of companies, the behavior of institutional investors, as well as entrepreneurial finance and management, including private equity, the venture capital industry, young startups, and high-growth-potential firms. I teach these courses to Ph.D., MBA, undergraduate, and Executive Education students. In addition to my teaching responsibilities, I am a Faculty Research Fellow at the National Bureau of Economic Research. Before joining the Harvard faculty in 1995, I was a member of the faculty at the University of Chicago Graduate School of Business, where I taught entrepreneurial finance from 1993 to 1995. I received an A.B. in Biology from Harvard College in 1987, an M.Sc. in Economics from Oxford University in 1989, and an M.A. and Ph.D. in Business Economics from Harvard University in 1993.

2. In my career as an academic, I have published numerous articles in peer-reviewed finance and economics journals on valuation, the venture capital and private equity industries, and entrepreneurial finance, and have also written numerous case studies and technical notes. Many of these case studies, notes, and research articles have directly examined the structure of private equity, and the economics of contracting and exit issues involving private equity firms. My research has examined various aspects of financing including contract design, organizational structure, compensation structure, and exiting investments. I am the co-author of several books: *The Venture Capital Cycle* (editions 1 and 2) published by MIT Press, *The Money of Invention: How Venture Capital Creates New Wealth* published by Harvard Business School Press, and *Entrepreneurial Finance: A Casebook* published by John Wiley Press. I am an Associate Editor of the *Journal of Finance*, *Journal of Economic Literature*, *Small Business Economics*, and *Journal of Private Equity*, as well as a referee for a number of academic journals, including the *Journal of Financial Economics*, *Journal of Political Economy*, *Quarterly Journal of Economics*, and *Review of Financial Studies*.

3. I have extensive professional experience in private equity and other related areas such as corporate finance, company structure, governance, valuation, and entrepreneurship. I have served on the boards of directors of several companies, including the internet-related firms

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ZEFER, Mercateo, and OnTheFrontier.com. I have also been on the boards of directors or advisory boards of several venture capital and private equity firms, including New Capital Partners, OnPoint Technologies, Khosla Ventures, the Highland Consumer Fund, Knightsbridge Advisors, Evergreen Capital, and Gemini Capital. I am a co-founder and non-executive managing director of Spur Capital Partners, a venture capital fund-of-funds. I am, and have been, an investor in a number of venture capital and private equity funds. I have also co-invested in private companies alongside venture capital and private equity investors. In addition, I have advised numerous firms (including private equity and venture-capital financed firms) on fundraising, future projections, and valuation. I have also served as a consultant, board member, or advisor to numerous companies, investment banks, private equity funds, and venture capital firms. In that capacity, I have been asked to value particular companies or particular investments and advise on capital-raising. A copy of my CV is attached as **Appendix A** to this report.

4. I have served as an expert on several legal matters. I have served as an expert on the valuation of public and private companies, factors affecting public company stock prices, the customs and practices of venture capital and private equity organizations, and the terms and conditions of employment agreements at entrepreneurial firms. I have been qualified to serve as an expert witness on securities and valuation cases in a variety of industries. A list of my depositions and trial testimony over the last four years is presented in **Appendix B** to this report.

## **II. Assignment**

5. I have been retained by counsel for Perrigo Co., PLC (“Perrigo” or the “Company”) to review and respond to the expert report submitted by Dr. Zachary Nye dated November 30, 2018 (“Nye Report”).<sup>1</sup> Specifically, I have been asked to evaluate Dr. Nye’s opinion that the market for Perrigo common stock was efficient during the period April 21, 2015 to May 3, 2017, both dates inclusive (“Class Period”), and in particular, Dr. Nye’s conclusion that Perrigo shares listed on the Tel Aviv Stock Exchange (“TASE”) traded in an efficient market. In addition, I have been asked to evaluate whether Plaintiffs have articulated a methodology for calculating damages with respect to Plaintiffs’ Section 10(b) and Section 14(e) allegations that can be

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<sup>1</sup> Expert Report of Zachary Nye, Ph.D., *Roofers’ Pension Fund, Individually and on Behalf of All Others Similarly Situated, v. Joseph C. Papa, et al.*, dated November 30, 2018 (“Nye Report”).

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applied on a class-wide basis in a manner that is consistent with Plaintiffs' theory of liability in this case.<sup>2</sup>

6. In formulating my opinions, I have relied on my knowledge, prior experience, academic research on relevant topics, and formal training in economics and finance. In performing my analyses, I have examined a variety of materials, including, but not limited to, the Nye Report, legal pleadings, documents and deposition testimony provided in this case, financial and regulatory filings, company press releases, public press, and analyst reports. A list of the documents I relied upon in preparing this report is attached as **Appendix C**.

7. I am being compensated at my standard billing rate of \$1,200 per hour. I have been assisted in this matter by staff of Cornerstone Research, who worked under my direction. I receive compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinion or the outcome of this or any other matter. My work on this matter is ongoing, and I reserve the right to modify or supplement my opinions in the event that I become aware of additional facts, information, or contentions of the parties or witnesses.

**III. Summary of opinions**

8. Based on my experience and analysis of the materials I have reviewed in this matter, my opinions are as follows.

9. First, I find that Dr. Nye fails to establish market efficiency for Perrigo's stock traded on the TASE throughout the Class Period:

- a) Dr. Nye attempts to infer market efficiency for Perrigo's stock traded on the TASE based on his purported finding that there is "price parity throughout each day" when both the U.S. market and the TASE market are open. However, the U.S. and TASE markets for Perrigo shares were typically open at the same time

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<sup>2</sup> I understand Plaintiffs' allegations in this case involve three classes of purchasers of Perrigo's common stock during the Class Period (collectively "Class Members"): (i) a U.S. purchaser class involving Section 10(b) allegations, (ii) a TASE purchaser class involving allegations under Israeli Securities Law, and (iii) a tender offer class involving allegations under Section 14(e) (Amended Complaint for Violation of the Federal Securities Laws, *Roofers' Pension Fund v. Joseph Papa, et al.*, dated June 21, 2017 ("Complaint")).

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for less than only four hours out of over 37 hours per week during which the TASE market is typically open. Dr. Nye's analysis ignores price movements that occurred on the TASE market outside of U.S. market hours, and therefore does not support that the TASE market for Perrigo shares was efficient throughout the Class Period.

- b) Applying his own criteria for indirect evidence of market efficiency, Dr. Nye fails to show that *Cammer* factors 1–4 are satisfied for Perrigo shares traded on the TASE market. Had Dr. Nye reported average weekly trading volume for the TASE market separately, he would have found that his measure of average weekly turnover is only 0.40%, well below the average weekly volume threshold of 1% to 2% he cites as supporting a “presumption” of market efficiency. Dr. Nye also fails to demonstrate that price discovery on the TASE market was supported by analysts, market makers, and arbitrageurs operating in that market.
  - c) With respect to *Cammer* factor 5, Dr. Nye's purported analysis of the “cause-and-effect relationship” between earnings announcements and price responses of Perrigo's shares is not based on any objective methodology. In addition, the event study Dr. Nye conducted for the TASE market yields results that are often inconsistent with the same event study model he performs for Perrigo's shares traded on the U.S. market. Dr. Nye further ignores evidence that information was not fully incorporated into the TASE price until after the U.S. market opened, even though the relevant information was first released before or during TASE market hours.
  - d) Dr. Nye's purported “price parity” analysis ignores that there were often meaningful deviations in returns between the TASE market and the U.S. market during the brief period when both markets were open during the Class Period.
10. Second, with respect to Plaintiffs' Section 14(e) claims, I find that Dr. Nye's proposed approach for measuring damages makes speculative and unreasonable assumptions and ignores individualized inquiry required for measuring economic damages:
- a) To my knowledge, Dr. Nye's proposed approach for measuring Section 14(e) damages is not based on any methodology that is widely used or accepted in the

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peer-reviewed academic literature, and he does not present any independent economic analysis to validate that his proposed approach would capture the amount of actual economic harm incurred by Class Members.

- b) Dr. Nye's proposed damages approach relies on the speculative and unreasonable assumption that Mylan would have made the same tender offer but for the alleged misrepresentations. Dr. Nye illogically assumes that the purported truth would be meaningful to shareholders' evaluation of the tender offer, but not to Mylan's decision to make the tender offer in the first place. Dr. Nye's assumption is also inconsistent with Plaintiffs' Section 10(b) claims that the market would have allegedly assessed a lower market price for Perrigo's shares had the purported truth been known.
- c) Dr. Nye's proposed damages approach is sensitive to his unsupported choices of inputs into his damages formula, which do not provide a reasonable measure of economic damages to Class Members. In particular, Dr. Nye has not articulated any methodology for determining the price of Mylan's shares but for the alleged misrepresentations upon acceptance of the tender offer. In addition, the high degree of sensitivity of Dr. Nye's proposed damages calculation to his unsupported assumption about Perrigo's standalone value suggests that his proposed damages approach is unreasonable and would likely overstate damages to Class Members.
- d) In order to measure economic damages to Class Members, individualized inquiry would be required to understand which Class Members would have tendered their shares had they known the purported truth about the alleged misrepresentations. Dr. Nye ignores that Class Members' economic positions depend on their decisions to tender their shares but for the alleged misrepresentations, and unreasonably assumes that all Class Members would have tendered their shares.
- e) Individualized inquiry into Class Members' potential offsetting returns on their holdings of Mylan's shares would also be required. Dr. Nye ignores that some Class Members who held shares in both Mylan and Perrigo would have been worse off under his assumed but-for scenario.



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11. Third, with respect to Plaintiffs' Section 10(b) claims for both U.S. and TASE purchasers, I find that Dr. Nye's proposed methodology cannot reliably measure damages attributable only to the actionable alleged misrepresentations:

- a) Dr. Nye has not articulated any specific approach for measuring damages in this matter consistent with Plaintiffs' theory of liability with respect to Plaintiffs' Section 10(b) claims. Beyond suggesting that a constant inflation band could be constructed using an event study approach that measures Company-specific price changes on the alleged corrective disclosures, Dr. Nye concedes that he has not determined whether his proposed approach could actually be used to measure damages consistent with Plaintiffs' theory of liability.
- b) Dr. Nye's proposed event study approach is predicated on the assumption that the stock price reaction on the alleged corrective disclosure dates reasonably approximates the value of the information that could have and should have been disclosed at earlier dates during the Class Period. However, Dr. Nye fails to consider that it may not have been possible for Perrigo to disclose the same allegation-related information on earlier dates during the Class Period, such as the specific outcomes of the Omega acquisition. To the extent that Plaintiffs allege that these disclosures reflect a materialization of concealed risks, Dr. Nye has failed to articulate how his proposed event study approach can be used to measure inflation prior to the time these risks were realized.
- c) Dr. Nye's proposed approach of carrying back Company-specific price declines on the alleged corrective disclosure dates is particularly problematic for measuring alleged inflation during the portion of the Class Period when Mylan's offer for Perrigo was pending. Dr. Nye has not proposed a methodology that is capable of disentangling price movements in Perrigo's shares attributable to changes in investors' expectations about Mylan's pending offer from news about Perrigo's standalone value and the alleged misrepresentations.
- d) Dr. Nye has not addressed whether or how it would be possible to disaggregate price responses on the alleged corrective disclosures attributable to information unrelated to the actionable alleged misrepresentations in this case. For example,

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the April 25, 2016 alleged corrective disclosure involved release of allegation-related information about both themes of actionable alleged misrepresentations and other confounding information, including the departure of Perrigo's CEO and a decrease in earnings guidance. Dr. Nye's analysis also ignores that alleged corrective disclosures about the Omega acquisition could in part reflect a realization of previously disclosed risks.

- e) Dr. Nye has not provided any methodology to disaggregate the price responses where Plaintiffs allege corrective information related to both categories of actionable allegations were disclosed. If at a later date a trier of fact were to find that there is no liability associated with specific alleged misrepresentations, Dr. Nye has not explained how his proposed methodology will be able to disaggregate the portion of the price decline on the alleged corrective disclosure dates attributable only to the remaining actionable alleged misrepresentations.

#### **IV. Background**

##### **A. Perrigo**

12. Perrigo is a global healthcare company that manufactures and supplies over-the-counter ("OTC") healthcare products, including infant formulas, branded OTC products, and generic pharmaceutical products.<sup>3</sup> Founded in 1887 in Michigan, the original Perrigo entity underwent a transaction in 2013 that led to the creation of Perrigo Company plc under a parent company incorporated in Ireland.<sup>4</sup> Perrigo reported revenues of approximately \$5 billion in 2017.<sup>5</sup> During the Class Period, Perrigo's common stock was dual-listed on the New York Stock Exchange ("NYSE") and the TASE under the ticker "PRGO."<sup>6</sup>

13. During the relevant period, Perrigo had three main operating segments: Consumer Healthcare Americas, Consumer Healthcare International (previously known as Branded

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<sup>3</sup> "About Us – A Leading Global Over-the-Counter Pharmaceutical Company," Perrigo, available at <https://www.perrigo.com/about/about-perrigo.aspx>, accessed on January 30, 2019; Perrigo Form 10-K, dated March 1, 2018 ("Perrigo 2017 Annual Report"), p. 3.

<sup>4</sup> Perrigo 2017 Annual Report, p. 3.

<sup>5</sup> Perrigo 2017 Annual Report, p. 98.

<sup>6</sup> Perrigo 2017 Annual Report, p. 50.

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Consumer Health (“BCH”)), and Prescription Pharmaceuticals.<sup>7</sup> Perrigo’s Consumer Healthcare Americas segment focuses on the development, manufacturing, and “sale of [OTC] store brand products, including cough, cold, and allergy products, analgesics, gastrointestinal products, smoking cessation products, infant formula and foods and animal health products” in the U.S., Mexico, and Canada.<sup>8</sup> Perrigo’s Consumer Healthcare International segment focuses on the development, manufacturing, marketing, and distribution of “European OTC brands in the cough, cold and allergy, lifestyle, personal care and derma-therapeutics, natural health and vitamins, and anti-parasite categories.”<sup>9</sup> Perrigo’s Prescription Pharmaceuticals segment focuses on the development, manufacturing, and marketing of “generic prescription drugs primarily in the U.S.”<sup>10</sup>

14. In the decade preceding the Class Period, Perrigo grew in part through over 20 acquisitions.<sup>11</sup> On March 30, 2015, Perrigo acquired Omega Pharma Invest N.V. (“Omega”) in a deal valued at \$4.6 billion in stock, cash, and assumed liabilities.<sup>12</sup> Omega was a company that developed OTC health and personal care products with operations focused in European countries.<sup>13</sup> The Omega acquisition became part of Perrigo’s BCH business segment.<sup>14</sup> When Perrigo changed its reporting segments in the fourth quarter of 2016, the BCH segment became part of what is currently the Consumer Healthcare International segment.<sup>15</sup>

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<sup>7</sup> Perrigo 2017 Annual Report, p. 4.

<sup>8</sup> “Consumer Healthcare Americas – Delivering High-Quality Store Brand OTC Products on the Retail Shelf,” Perrigo, available at <https://www.perrigo.com/business/healthcare.aspx>, accessed on January 30, 2019; Perrigo 2017 Annual Report, p. 5.

<sup>9</sup> Perrigo 2017 Annual Report, p. 8.

<sup>10</sup> Perrigo 2017 Annual Report, p. 11.

<sup>11</sup> BTIG, “Perrigo Company plc: The Best Way to Defend Against Mylan... Buy,” September 17, 2015.

<sup>12</sup> Perrigo 2017 Annual Report, p. 4.

<sup>13</sup> “Our Company,” Omega Pharma, available at [https://www.omega-pharma.com/en/our\\_company\\_en](https://www.omega-pharma.com/en/our_company_en), accessed on April 2, 2019; “Fact Sheet,” Omega Pharma, available at [https://www.omega-pharma.com/en/fact\\_sheet\\_en](https://www.omega-pharma.com/en/fact_sheet_en), accessed on April 2, 2019.

<sup>14</sup> Perrigo Form 10-KT, dated February 25, 2016 (“Perrigo 2016 Annual Report”), p. 104.

<sup>15</sup> Perrigo Press Release, “Perrigo Updates Segment Reporting Structure,” dated January 10, 2017, available at <https://investor.perrigo.com/2017-01-10-Perrigo-Updates-Segment-Reporting-Structure>, accessed on April 2, 2019.

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**B. Mylan's offer for Perrigo**

15. On April 8, 2015, Mylan N.V. ("Mylan"), an international pharmaceutical company based in the Netherlands, announced an unsolicited offer to acquire Perrigo.<sup>16</sup> Mylan's initial offer for Perrigo consisted of cash and stock reportedly then-valued at \$205 per share, with final terms contingent on the approval of Mylan shareholders.<sup>17</sup> On April 24, 2015, Mylan specified that the terms of its offer per share included \$60 per share in cash and 2.2 Mylan ordinary shares for 80% or more of Perrigo's outstanding shares.<sup>18</sup> After the initial bid, on April 21, 2015, Mylan itself became the target of a separate takeover attempt by Teva Pharmaceutical Industries Ltd. ("Teva"), which Teva management presented as a "more attractive alternative to Mylan's proposed acquisition of Perrigo Company plc" for Mylan stockholders.<sup>19</sup> On the same day as the Teva bid for Mylan, Perrigo issued an official response to Mylan's offer in a press release, in which it announced that its Board unanimously rejected the proposal, citing that it "substantially undervalue[d] the Company."<sup>20</sup>

16. Following Perrigo's rejection of Mylan's initial offer, on April 29, 2015, Mylan increased its offer for Perrigo to \$75 per share in cash and 2.3 Mylan ordinary shares for 80% or more of Perrigo's outstanding shares.<sup>21</sup> However, as the price of Mylan's shares gradually declined over the following several months, the implied value of Mylan's offer declined accordingly. **Exhibit 1** shows the implied value of Mylan's offer for Perrigo based on the market price of Mylan's

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<sup>16</sup> Jefferies LLC, "Perrigo (PRGO): PRGO Rejects MYL's Bid; Generics Bail Out CHC Again While Guidance Looks Solid," April 22, 2015.

<sup>17</sup> Mylan Press Release, "Mylan Proposes To Acquire Perrigo For \$205 Per Share," dated April 8, 2015, available at <http://newsroom.mylan.com/2015-04-08-Mylan-Proposes-To-Acquire-Perrigo-For-205-Per-Share>, accessed on March 14, 2019; Jefferies LLC, "Pharmaceuticals/Specialty: MYL's Formal Bid for PRGO Fails to Impress; Will Teva Go Hostile?," April 24, 2015.

<sup>18</sup> Mylan Press Release, "Mylan To Commence Formal Offer To Acquire Perrigo For US\$60 In Cash And 2.2 Mylan Shares Per Perrigo Share," dated April 24, 2015, available at <http://newsroom.mylan.com/2015-04-24-Mylan-To-Commence-Formal-Offer-To-Acquire-Perrigo-For-US-60-In-Cash-And-2-2-Mylan-Shares-Per-Perrigo-Share>, accessed on April 2, 2019.

<sup>19</sup> Teva Press Release, "Teva Proposes to Acquire Mylan for \$82.00 Per Share in Cash and Stock," dated April 21, 2015, available at [https://www.tevapharm.com/news/teva\\_proposes\\_to\\_acquire\\_mylan\\_for\\_82\\_00\\_per\\_share\\_in\\_cash\\_and\\_stock\\_04\\_15.aspx](https://www.tevapharm.com/news/teva_proposes_to_acquire_mylan_for_82_00_per_share_in_cash_and_stock_04_15.aspx), accessed on March 22, 2019.

<sup>20</sup> Perrigo Press Release, "Perrigo Board Unanimously Rejects Unsolicited Proposal From Mylan," dated April 21, 2015, available at <https://investor.perrigo.com/2015-04-21-Perrigo-Board-Unanimously-Rejects-Unsolicited-Proposal-From-Mylan>, accessed on March 14, 2019.

<sup>21</sup> Mylan Press Release, "Mylan Raises Offer to Acquire Perrigo," dated April 29, 2015, available at <http://newsroom.mylan.com/2015-04-29-Mylan-Raises-Offer-to-Acquire-Perrigo>, accessed on April 11, 2019.

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shares during the period in which Mylan's offer for Perrigo was pending. Most significantly, on July 27, 2015, the market price of Mylan's shares declined approximately 15% on news that Teva would withdraw its offer for Mylan.<sup>22</sup> On August 13, 2015, Mylan announced that it was relaxing the condition under which it would accept the offer, requiring that only 50% of Perrigo's shares be tendered in order for the acquisition to proceed. Under the lowered 50% acceptance condition, I understand that at least 80% of Perrigo's shares would still need to be tendered in order to allow Mylan to effect a short-form takeover of Perrigo under Irish law.<sup>23</sup>

17. On August 28, 2015, Mylan obtained approval of its shareholders for its offer for Perrigo.<sup>24</sup> On September 14, 2015, Mylan finalized its tender offer for Perrigo.<sup>25</sup> Consistent with the terms of Mylan's existing offer, the final tender offer would provide \$75 per share and 2.3 shares of Mylan per share of Perrigo, under the condition that at least 50% of Perrigo shares were tendered. However, due to the decline in Mylan's share price, the implied value of the Mylan offer was significantly lower than when Mylan's offer was first announced. Mylan's tender offer expired at 8:00 AM ET on November 13, 2015 because only approximately 40% of Perrigo's shares had tendered (below the 50% acceptance condition).<sup>26</sup>

**C. Allegations**

18. In the Amended Complaint dated June 21, 2017, Plaintiffs allege that Defendants "made material misrepresentations and omissions about four key areas: (a) Perrigo's organic growth; (b) the integration of Perrigo's largest acquisition, [Omega]; (c) collusive pricing in Perrigo's most

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<sup>22</sup> Teva Press Release, "Teva Withdraws Proposal to Acquire Mylan," dated July 27, 2015, available at [https://www.tevapharm.com/news/teva\\_withdraws\\_proposal\\_to\\_acquire\\_mylan\\_07\\_15.aspx](https://www.tevapharm.com/news/teva_withdraws_proposal_to_acquire_mylan_07_15.aspx), accessed on March 14, 2019.

<sup>23</sup> Mylan Press Release, "Mylan Lowers Acceptance Condition on Perrigo Offer to Greater than 50%," dated August 13, 2015, available at <http://newsroom.mylan.com/2015-08-13-Mylan-Lowers-Acceptance-Condition-on-Perrigo-Offer-to-Greater-than-50>, accessed on March 14, 2019.

<sup>24</sup> Mylan Press Release, "Mylan Shareholders Overwhelmingly Approve Proposed Acquisition of Perrigo," dated August 28, 2015, available at <http://newsroom.mylan.com/2015-08-28-Mylan-Shareholders-Overwhelmingly-Approve-Proposed-Acquisition-of-Perrigo>, accessed on March 14, 2019.

<sup>25</sup> Mylan Press Release, "Mylan Commences Offer to Acquire Perrigo," dated September 14, 2015, available at <http://newsroom.mylan.com/2015-09-14-Mylan-Commences-Offer-to-Acquire-Perrigo>, accessed on March 14, 2019.

<sup>26</sup> Perrigo Press Release, "Perrigo Shareholders Convincingly Reject Mylan's Tender Offer, Expressing Confidence in Perrigo's Long-Term Strategy," dated November 13, 2015, available at <https://investor.perrigo.com/2015-11-13-Perrigo-Shareholders-Convincingly-Reject-Mylans-Tender-Offer-Expressing-Confidence-in-Perrigos-Long-Term-Strategy>, accessed on March 14, 2019.

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profitable division, generic drugs (which Perrigo called ‘Generic Rx’ or sometimes just ‘Rx’); and (d) the deteriorating value of Perrigo’s largest financial asset, a royalty stream for the drug Tysabri.”<sup>27</sup> According to the Court’s Opinion granting in part and denying in part Defendants’ Motions to Dismiss (“MTD Order”), however, I understand that only two of these categories of allegations remain actionable: (i) the “present success” of the integration of the Omega acquisition, and (ii) the alleged collusive pricing in Perrigo’s generic prescription drugs division.<sup>28</sup>

19. With respect to the allegations regarding the integration of the Omega acquisition, Plaintiffs allege that Defendants made statements that were “materially false and misleading when made” concerning the progress of the Omega integration and Omega’s growth prospects.<sup>29</sup> I understand that Plaintiffs allege misrepresentations with respect to the Omega integration were made on eight dates between April 21, 2015 and January 5, 2016.<sup>30</sup>

20. With respect to the allegations of collusive pricing in Perrigo’s generic prescription drugs division, Plaintiffs allege that Perrigo made statements that were “materially false and misleading when made” concerning its generic prescription drugs division’s pricing and competition arising from alleged “collusion with other manufacturers of generic drugs” and “pre-existing price-fixing conspiracies.”<sup>31</sup> I understand Plaintiffs allege misrepresentations with respect to alleged collusive pricing in Perrigo’s generic prescription drugs division on 14 dates between April 21, 2015 and November 10, 2016.<sup>32</sup>

21. I understand that Plaintiffs allege these actionable alleged misrepresentations were corrected on the following seven dates:

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<sup>27</sup> Complaint, ¶1.

<sup>28</sup> Court’s Opinion on Defendants’ Motion to Dismiss, *Roofers’ Pension Fund v. Papa, et. al.*, ECF. No. 114, dated July 27, 2018; Based on the MTD Order, I understand only “Plaintiffs’ actionable statements regarding the present success of the integration” remain actionable in this matter. *See* MTD Order, p. 31.

<sup>29</sup> Complaint, ¶¶134, 136, 138, 140, 142, 144, 148, 150.

<sup>30</sup> Complaint, ¶¶132–150.

<sup>31</sup> Complaint, ¶¶69, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 201, 202, 204. Specifically, Plaintiffs claim that an “economic expert determined that there were strong indicia of collusion” involving five drugs: “desonide cream and ointment, econazole cream, permethrin cream, tretinoin cream, clobetasol gel and foam, and halobetasol cream and ointment.” *See* Complaint, ¶70.

<sup>32</sup> Complaint, ¶¶176–204.

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- a) On February 18, 2016, Plaintiffs allege that the Company “revealed previously undisclosed problems regarding Omega,” “conceded it needed to restructure parts of the BCH unit containing Omega assets,” and “admitted that it needed to record an impairment charge of \$185 million because the carrying value of certain Omega assets exceeded their fair value.”<sup>33</sup>
- b) On April 25, 2016, Plaintiffs allege that “the Company attributed ... poor financial results to increased competitive pressures in its prescription drug segment and weaker-than-expected performance within Omega,” and that “Omega impairment charges might grow even larger than the \$185 million charge it had announced two months earlier.”<sup>34</sup>
- c) On May 12, 2016, Plaintiffs allege that the Company “largely attributed [its Q1 2016] loss to an additional \$467 million impairment charge relating to the Omega acquisition.”<sup>35</sup>
- d) On August 10, 2016, Plaintiffs allege that Perrigo revised its guidance “in part because of lower performance expectations related to the Omega acquisition as it continued to implement ‘transformational organizational changes and improvements in products and process in this business.’”<sup>36</sup>
- e) On December 8, 2016, Plaintiffs allege that Perrigo’s shares “dropped another 2.37% ... after Perrigo announced that it had to entirely restructure the BCH (Omega) unit.”<sup>37</sup>
- f) On March 3, 2017, Plaintiffs allege that “Bloomberg reported that Perrigo’s name had been raised by antitrust regulators at the Department of Justice.”<sup>38</sup>
- g) On May 2, 2017, Plaintiffs allege that “Perrigo revealed that its offices had been raided as part of an ongoing investigation by the United States Department of Justice into price-fixing in the pharmaceutical industry.”<sup>39</sup>

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<sup>33</sup> Complaint, ¶225.

<sup>34</sup> Complaint, ¶230.

<sup>35</sup> Complaint, ¶234.

<sup>36</sup> Complaint, ¶237.

<sup>37</sup> Complaint, ¶238.

<sup>38</sup> Complaint, ¶242.

<sup>39</sup> Complaint, ¶243.



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22. Plaintiffs allege that Class Members in the U.S. purchaser class involving Section 10(b) allegations as well as the TASE purchaser class involving allegations under Israeli Securities Law incurred damages because they “would not have purchased ... at the prices they paid, or at all, had they been aware that the market prices for Perrigo common stock had been artificially inflated by Defendants’ fraudulent course of conduct.”<sup>40</sup> Plaintiffs further allege that Class Members in the tender offer class involving allegations under Section 14(e) incurred damages because they “were prevented from fairly assessing Mylan’s offer, and were deprived of the opportunity to exchange their Perrigo shares for superior compensation in cash and stock.”<sup>41</sup>

**V. Dr. Nye fails to establish market efficiency for Perrigo stock traded on the TASE throughout the Class Period**

**A. Evaluating market efficiency from a financial economics perspective**

23. From a financial economics perspective, markets are considered efficient when prices at any time “‘fully reflect’ available information.”<sup>42</sup> Academic studies that have evaluated market efficiency often focus on the following three implications for prices of a security in an efficient market. First, prices in an efficient market should react quickly, fully, and accurately to new information about the security. Second, current prices should incorporate all information contained in past prices of the security, meaning that it is not possible to predict future returns from prices today or past returns (called “weak form” market efficiency). Third, prices should incorporate all publicly available information, meaning it is not possible to predict future returns from publicly available information today (called “semi-strong form” market efficiency). Semi-strong form market efficiency is most relevant to the question of reliance in a securities litigation context.

24. Courts often examine a number of structural factors when determining whether the market for a particular stock is efficient. Often cited are the “*Cammer* factors,” which Dr. Nye considers in his report.<sup>43</sup> The *Cammer* factors are: (1) large average trading volume, (2) a

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<sup>40</sup> Complaint, ¶288.

<sup>41</sup> Complaint, ¶300.

<sup>42</sup> Fama, Eugene, “Efficient Capital Markets: II,” *Journal of Finance* 46, no. 5 (1991): 1575–1617.

<sup>43</sup> Nye Report, ¶16.



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significant number of analysts following the stock, (3) the presence of numerous market makers and arbitrageurs, (4) eligibility to file an S-3 Registration Statement, and (5) an immediate stock-price response to unexpected news events.<sup>44</sup> While the first four *Cammer* factors describe common structural characteristics of efficient markets, they do not directly address whether the market is efficient, that is, whether prices quickly and fully reflect publicly available information. Indeed, more recent studies in the economics and finance literature make clear that the satisfaction of those factors is not sufficient to demonstrate market efficiency.<sup>45</sup> The fifth *Cammer* factor is the only factor that addresses semi-strong form market efficiency, where a properly constructed event study can be used to evaluate whether prices responded quickly and fully to new information.

**B. Dr. Nye cannot infer market efficiency of Perrigo's shares traded on the TASE based on his claim that there is "price parity" with the U.S. market when both markets are open**

25. In his report, Dr. Nye finds that his analysis of the *Cammer* factors "supports [his] conclusion that the market for Perrigo stock was informationally efficient during the Class Period."<sup>46</sup> Based on his purported finding that the *Cammer* factors are satisfied for Perrigo shares traded on U.S. markets, Dr. Nye infers that his "demonstration of informational efficiency for the U.S. market directly evidences the informational efficiency of the Israeli market for Perrigo stock."<sup>47</sup> Dr. Nye attempts to support his inference of market efficiency for the TASE market for Perrigo shares based on a comparison of intraday prices on the U.S. market and the TASE when both markets are open.<sup>48</sup> From this analysis, Dr. Nye concludes, "cross-market arbitrage was efficient enough to ensure price parity throughout each day, thereby implying that the markets for Perrigo stock in the U.S. and in Israel were equally efficient during the Class Period."<sup>49</sup>

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<sup>44</sup> *Cammer v. Bloom*, 711 F. Supp. 1264, (D.N.J. 1989).

<sup>45</sup> See Barberis, Nicholas, and Richard Thaler, "A Survey of Behavioral Finance," *Handbook of the Economics of Finance* (2003): 1053–1121 for a review of the finance literature focused on departures from market efficiency.

<sup>46</sup> Nye Report, ¶17.

<sup>47</sup> Nye Report, ¶58.

<sup>48</sup> Nye Report, ¶57.

<sup>49</sup> Nye Report, ¶58.

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26. However, Dr. Nye’s purported evidence that there was “price parity throughout each day” between the U.S. market and the TASE market does not establish that the TASE market for Perrigo shares was efficient throughout the Class Period.<sup>50</sup> As Dr. Nye acknowledges, the U.S. and TASE markets for Perrigo shares were typically open at the same time for less than approximately one hour per day, and only on four days per week, meaning that both markets were typically open at the same time for *less than four hours per week*.<sup>51</sup> The typical number of trading hours per week on the TASE is over 37 hours.<sup>52</sup> Considering that there is a lack of overlap in trading hours between the U.S. market and the TASE market, Dr. Nye’s analysis fails to recognize that investors trading in these different markets could experience different returns and have different opportunities to respond to the release of new information. Given that trading on the TASE occurred largely before U.S. markets opened, Dr. Nye has no basis to conclude that “cross-market arbitrage was efficient enough to ensure price parity *throughout each day*” on the TASE market for Perrigo shares.<sup>53</sup>

27. Establishing that investors who purchased Perrigo’s stock on the TASE could independently rely on the TASE price to reflect all publicly available information requires evaluating whether the TASE had its own well-functioning price discovery mechanisms when

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<sup>50</sup> Nye Report, ¶58.

<sup>51</sup> Dr. Nye acknowledges this fact in his report. See Nye Report, footnote 109 (“During the Class Period, the U.S. and Israeli markets were simultaneously open from 9:30 a.m. ET to 10:30 a.m. ET. On days when it was daylight savings time in New York, but not in Israel, the two markets were simultaneously open from 9:30 a.m. to 11:30 a.m. ET.”). Regular trading hours on the NYSE are Monday through Friday, 9:30 AM to 4:00 PM ET. The TASE is typically open Sundays through Thursdays from 2:45 AM ET to 10:25 AM ET, not 10:30 AM ET as Dr. Nye claims. This implies that investors in Perrigo on the TASE have different hours during which they are able to trade their securities than investors in Perrigo on the U.S. market.

<sup>52</sup> See “TASE Trading Schedule,” Tel-Aviv Stock Exchange, available at [https://info.tase.co.il/Eng/trading/trading\\_schedule/Pages/trading\\_schedule.aspx](https://info.tase.co.il/Eng/trading/trading_schedule/Pages/trading_schedule.aspx), accessed on April 9, 2019. See also **Appendix E** for more details on U.S. market and TASE market trading hours.

<sup>53</sup> Nye Report, ¶58 (emphasis added). In his deposition testimony, Dr. Nye admits that he did not perform analysis of “price parity” during “the great majority of time ... to determine whether there was price parity when one market was open and the other was closed.” Dr. Nye was only able to point to his event study, which is based on a closing price series at a point in time when both the U.S. market and TASE market are open. See Deposition of Zachary Nye, Ph.D., dated April 2, 2019 (“Nye Deposition”), pp. 33:10–34:17. Dr. Nye stated in his deposition that he “believe[s]” he picked “10:00 a.m.” as the “time when every day” both the U.S. market and TASE market are open, but he could not “recall” the exact time he picked. See Nye Deposition, pp. 174:19–175:9.

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the U.S. market price was not available.<sup>54</sup> In contrast, Dr. Nye's analysis simply ignores price movements that occurred on the TASE market outside of U.S. market hours.<sup>55</sup> As a result, Dr. Nye has not presented any analysis to determine whether the TASE price quickly incorporated new information released during the substantial portion of TASE market hours when U.S. markets were closed. By ignoring whether price discovery takes place on the TASE market independently from the U.S. market, Dr. Nye's analysis is inadequate to support his conclusion that the TASE market for Perrigo shares was efficient during a substantial portion of the relevant times investors were trading on the TASE market throughout the Class Period.

**C. Dr. Nye's analysis does not demonstrate that *Cammer* factors 1–4 are satisfied during the Class Period for Perrigo's shares traded on the TASE**

28. In concluding that his analysis of the five *Cammer* factors supports the claim that “the market for Perrigo stock was informationally efficient during the Class Period,”<sup>56</sup> Dr. Nye fails to show that *Cammer* factors 1–4 are satisfied with respect to Perrigo shares traded on the TASE. As discussed below, by conflating the two markets, Dr. Nye ignores key differences between the U.S. market and the TASE market for Perrigo's shares. Even applying his own criteria for indirect evidence of market efficiency based on the *Cammer* factors, Dr. Nye has no basis to infer efficiency of the TASE market for Perrigo's shares throughout the Class Period.<sup>57</sup>

29. Dr. Nye claims that liquidity “facilitate[s] the prompt price reaction to new, material information that is characteristic of an efficient market,” and he cites to *Cammer* to support the

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<sup>54</sup> The academic literature on cross-listed stocks with asynchronous trading has documented that there are in fact often differences in transaction costs, arbitrage risks, and market participants' trading strategies across different markets at different times. See, e.g., Moulton, Pamela C., and Li Wei, “A tale of two time zones: The impact of substitutes on cross-listed stock liquidity,” *Journal of Financial Markets* 12 (2009): 570–591; Halling, Michael, Pamela C. Moulton, and Marios Panayides, “Volume Dynamics and Multimarket Trading,” *Journal of Financial and Quantitative Analysis* 48, no. 2 (2013): 489–518; Gagnon, Louis, and G. Andrew Karolyi, “Multi-market trading and arbitrage,” *Journal of Financial Economics* 97 (2010): 53–80; Menkveld, Albert J., Siem Jan Koopman, and André Lucas, “Modeling Around-the-Clock Price Discovery for Cross-Listed Stocks Using State Space Methods,” *Journal of Business & Economic Statistics* 25, no. 2 (2007): 213–225; and Pascual, Roberto, Bartolomé Pascual-Fuster, and Francisco Climent, “Cross-listing, price discovery and the informativeness of the trading process,” *Journal of Financial Markets* 9 (2006): 144–161.

<sup>55</sup> Nye Report, ¶57; Nye Deposition, pp. 33:10–34:17.

<sup>56</sup> Nye Report, ¶17.

<sup>57</sup> In this section, I address differences between the U.S. market and TASE market that Dr. Nye's ignores within the framework he uses to conclude that the TASE market for Perrigo's shares is efficient. As discussed above, *Cammer* factors 1–4 do not directly address whether a market is efficient.

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presumption that a market is efficient if the average weekly turnover is at least 1% to 2% of outstanding shares.<sup>58</sup> However, Dr. Nye's claim that Perrigo shares had a "large weekly trading volume"<sup>59</sup> refers to the combined volume on the U.S. market and on the TASE.<sup>60</sup> In fact, a more careful inspection of Dr. Nye's analysis reveals that only approximately 5% of Perrigo's combined trading volume is derived from the TASE market.<sup>61</sup> Had Dr. Nye reported average weekly trading volume for the TASE market separately, he would have found that his measure of average weekly turnover is only 0.40%.<sup>62</sup> This average weekly volume for the TASE market is well below the threshold of 1% to 2% Dr. Nye cites as supporting a "presumption" of market efficiency.<sup>63</sup>

30. **Exhibit 2** further illustrates that the average intraday trading volumes during the Class Period are significantly lower on the TASE market than the U.S. market, even when the U.S. market is open at the same time. Specifically, before the U.S. market opens at 9:30 AM ET, the average trading volume on the TASE represents only 4% of the average trading volume on the U.S. market. Although the TASE volume increases slightly during the brief period when the U.S. market is also open (i.e., during the period Dr. Nye conducts his "price parity" analysis),<sup>64</sup> the average trading volume on the TASE still represents less than 15% of the average trading volume on U.S. markets during that same hour.<sup>65</sup>

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<sup>58</sup> Nye Report, ¶¶18, 20.

<sup>59</sup> Nye Report, ¶18.

<sup>60</sup> Nye Report, Exhibit 4.

<sup>61</sup> Nye Report, Exhibit 4.

<sup>62</sup> The difference in average weekly turnover between the U.S. market and TASE market is based on comparing 6.6% with 7.0% average weekly turnover volumes for the U.S. market and the combined U.S. and TASE market, respectively (Nye Report, Exhibit 4). In his deposition testimony, Dr. Nye claims that "one of the big problems with this analysis is that it's totally cross-listed" and that there is "another step in there that needs to be analyzed before you can say what the weekly turnover of the TASE shares are." However, Dr. Nye does not explain how he would perform this additional "step," and has not presented any such additional analysis in order to conclude that the TASE market in fact independently satisfies the criteria he cites for *Cammer* factor 1. See Nye Deposition, pp. 28:8–30:11.

<sup>63</sup> Nye Report, ¶20.

<sup>64</sup> Nye Report, ¶57.

<sup>65</sup> On average, the TASE intraday trading volume in the first 15 minutes after the open is about 5,000 shares. This compares to an average intraday trading volume on the U.S. market in the first 15 minutes after the U.S. open of about 49,000 shares. This implies that at the respective opening, volume on the TASE is about 10% of the opening volume on the U.S. market.

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31. With respect to *Cammer* factor 2, Dr. Nye claims that securities analysts “facilitate the dissemination of new information to investors and any corresponding share price reaction.”<sup>66</sup> He asserts that “several well-known investment firms followed and published research reports on Perrigo” during the Class Period, but he ignores that the market analysts covering Perrigo were almost exclusively U.S.-based.<sup>67</sup> As summarized in **Exhibit 3**, there were only three contributors which distributed only seven reports from Israel during the Class Period. This compares to a total of 26 U.S.-based contributors that issued a total of 507 reports over this same period.<sup>68</sup> To the extent that analyst coverage is relevant to the question of whether Perrigo shares traded in an efficient market on the TASE as Dr. Nye claims, his analysis fails to demonstrate that market participants on the TASE were engaged in production and distribution of information about Perrigo in support of price discovery outside of the U.S. market.

32. With respect to *Cammer* factor 3, Dr. Nye claims “the fact that trading in Perrigo stock was facilitated by a designated market maker on the NYSE, that arbitrage opportunities could have been exploited, and that there was tight price parity between NYSE and TASE during the Class Period, are all evidence in support of market efficiency.”<sup>69</sup> In addition to failing to establish “tight price parity between NYSE and TASE during the Class Period,” as discussed above, Dr. Nye makes a general statement that stock trading on TASE “is facilitated by market makers” but does not provide any evidence as to whether market makers facilitated the market for Perrigo’s shares on the TASE.<sup>70</sup>

33. In fact, Dr. Nye ignores that availability of market makers on the TASE is not comparable to availability of market makers on U.S. markets. Unlike the NYSE, for example, I understand that the TASE does not require a designated market maker for each stock. Rather, I understand the listed company has the ability (but not obligation) to “enter into an agreement with any

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<sup>66</sup> Nye Report, ¶23.

<sup>67</sup> Nye Report, ¶24.

<sup>68</sup> Analyst reports were considered based on availability from public sources (Thomson Reuters and S&P CapitalIQ), Dr. Nye’s backup, and counsel, as well as the report type typical of a given contributor. I consider 56 analyst reports that Dr. Nye does not consider. In addition, I do not consider 225 analyst reports considered in Dr. Nye’s report, which typically contain technical analysis and no analyst commentary.

<sup>69</sup> Nye Report, ¶28.

<sup>70</sup> Nye Report, ¶¶28, 31.

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TASE member and appoint him as a market maker in its securities.”<sup>71</sup> With respect to Perrigo’s TASE listing, I understand from counsel that Perrigo did not enter into any such an arrangement with a dedicated market maker during the Class Period. Dr. Nye therefore does not have any basis to assert that market makers were actively trading in Perrigo’s shares on the TASE market.

34. As evidence for the existence of arbitrageurs, Dr. Nye also suggests that the “size of bid/ask spreads” is an “indicator of the potential for arbitrage activity to correct market inefficiencies.”<sup>72</sup> Dr. Nye has not provided any support from the peer-reviewed academic literature or elsewhere for the proposition that the bid-ask spread is an accepted measure of arbitrage activity, or that it is possible to infer whether arbitrageurs are active in a market based on the level of bid-ask spreads. Further, Dr. Nye does not provide any threshold for how wide the spread would have to be for him to conclude the market was not efficient. Dr. Nye’s assertion based on bid-ask spreads therefore does not amount to a scientific or reliable method for evaluating whether there are arbitrageurs in the TASE market.

35. Even if bid-ask spreads were a relevant measure of arbitrage activity, **Exhibit 4** demonstrates that the bid-ask spreads Dr. Nye observes are as of market close and are not representative of intraday bid-ask spreads for both the TASE and U.S. markets. In fact, the intraday bid-ask spreads on both markets were significantly wider than the bid-ask spreads that he considered around market close for both the TASE market and U.S. market. Dr. Nye’s claim about the existence of arbitrageurs based on the bid-ask spreads not only lacks support as an accepted methodology, but is based on measures that do not reflect the actual level of bid-ask spreads throughout the trading day.

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<sup>71</sup> I understand that the rules further state that each company and its market maker of choice “agree upon the terms of the contract between them, including the payment of the company to the market maker.” Only “[a]fter the agreement with the company, the market maker requests TASE’s approval for operation as a market maker.” According to TASE’s website, there are three market makers: (i) IBI, (ii) Excellence, and (iii) Meitav-Dash. *See* “Market Makers FAQ: How is a Market Maker Appointed?” The Tel Aviv Stock Exchange, available at [https://info.tase.co.il/eng/trading/trading\\_method/pages/trading\\_market\\_makers.aspx](https://info.tase.co.il/eng/trading/trading_method/pages/trading_market_makers.aspx), accessed on March 13, 2019.

<sup>72</sup> Nye Report, ¶37.

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**D. Dr. Nye's *Cammer* factor 5 analysis is flawed and yields results that are inconsistent between the U.S. market and the TASE market**

36. For *Cammer* factor 5, the only direct test of market efficiency, Dr. Nye claims to conduct “a standard event study for Perrigo stock trading in both the U.S. market and on the TASE to determine whether new, material corporate events or financial releases promptly caused a measurable stock price reaction after accounting for contemporaneous market and industry effects.”<sup>73</sup> However, as discussed below, Dr. Nye's analysis of *Cammer* factor 5 is flawed for several reasons. First, Dr. Nye's purported analysis of the “cause-and-effect relationship” between earnings announcements and price responses of Perrigo's shares is not based on any objective assessment of whether the news actually represented unexpected positive or negative news to investors.<sup>74</sup> Second, Dr. Nye's event study methodology with respect to Perrigo shares traded on the TASE market yields results that are often inconsistent with the same event study model he performs for Perrigo shares traded on the U.S. market.<sup>75</sup> Third, Dr. Nye ignores that information released on some of his event dates was not fully incorporated into the TASE price until after the U.S. market opened, even though the relevant information was first released before or during TASE market hours.<sup>76</sup> Dr. Nye's analysis of *Cammer* factor 5 therefore fails to establish that the price of Perrigo's shares traded on the TASE market quickly incorporated new information when the U.S. market was closed.

37. Using his event study model, Dr. Nye analyzed Company-specific returns for Perrigo shares for the U.S. market and TASE market on 12 days during the Class Period “on which Perrigo released information related to its quarterly or year-end financial performance.”<sup>77</sup> Dr. Nye concludes from his analysis that “the observed Company-specific price reactions in Perrigo stock are consistent with those expected in an efficient stock market.”<sup>78</sup> However, Dr. Nye does not use any objective criteria for determining whether the announcements he considers represented unexpected positive or negative news to investors (e.g., analysis of whether the

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<sup>73</sup> Nye Report, ¶46.

<sup>74</sup> Nye Report, ¶46.

<sup>75</sup> **Exhibit 5 and Appendix D.**

<sup>76</sup> **Exhibits 6A and 6B.**

<sup>77</sup> Nye Report, ¶47, Exhibit 12.

<sup>78</sup> Nye Report, ¶47.



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announced earnings result missed or beat prior analyst earnings estimates).<sup>79, 80</sup> Instead, Dr. Nye appears to make a subjective determination of whether the news was “positive” or “negative” based on after-the-fact analyst commentary, which at times is inconsistent with the direction of the Company-specific return measured by Dr. Nye using his event study model.

38. For example, in his Exhibit 12, Dr. Nye finds a statistically significant positive Company-specific return on April 22, 2015, and states that a “statistically significant Company-specific stock price increase” is consistent with his expectations.<sup>81</sup> However, the quotes Dr. Nye includes in his exhibit also contain negative commentary, including that “Leerink wrote that the Company’s quarterly results were mixed,”<sup>82</sup> “RBC Capital stated that the Company’s quarterly results and guidance were ‘weak and endorsed many of [RBC’s] fundamental concerns,’”<sup>83</sup> and that “William Blair wrote that ‘sales were a bit shy of [its] projection.’”<sup>84</sup> Dr. Nye similarly does not explain any objective methodology that he used for arriving at his conclusion that prices of Perrigo shares on the TASE responded in a direction consistent with his expectations on any other event date.<sup>85</sup>

39. Dr. Nye purports to show that the U.S. and TASE markets were “equally efficient” and that arbitrage tightly linked the prices of the two market together.<sup>86</sup> If this were true, one would expect that the two markets would react to the same information in the same way. Specifically, one would expect that news that leads to a statistically significant Company-specific return in the

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<sup>79</sup> For example, Dr. Nye cites to Ball and Brown (1968) which uses an *ex ante* objective measure of analyst earnings expectations to quantify the unexpectedness of results. See Ball, Ray, and Philip Brown, “An Empirical Evaluation of Accounting Income Numbers,” *Journal of Accounting Research* 6, no. 2 (1968): 159–178.

<sup>80</sup> In his deposition testimony, Dr. Nye asserts that he used “objective measures of earnings expectations.” See Nye Deposition, pp. 54:18–55:2. However, in neither his report nor deposition testimony does Dr. Nye specify how he actually used any objective measures of earnings expectations for determining whether the direction of the price response was in fact “consistent with those expected in an efficient market.” See Nye Report, ¶47.

<sup>81</sup> Nye Report, Exhibit 12 (p. 17).

<sup>82</sup> Nye Report, Exhibit 12 (p. 8).

<sup>83</sup> Nye Report, Exhibit 12 (p. 9).

<sup>84</sup> Nye Report, Exhibit 12 (p. 12).

<sup>85</sup> Dr. Nye finds a statistically significant negative return on October 22, 2015, and states that a “statistically significant Company-specific stock price decline” is consistent with expectations. See Nye Report, Exhibit 12 (p. 47). However, the quotes Dr. Nye includes in his exhibit also contain positive commentary. For example, he states the following: “UBS maintained its rating and price target” for Perrigo. See Nye Report, Exhibit 12 (p. 35); “Deutsche Bank increased its price target for the stock, commenting that the Company had a ‘decent quarter.’” See Nye Report, Exhibit 12 (p. 39); “Jefferies increased its price target, commenting that the Company’s quarterly results were ‘solid.’” See Nye Report, Exhibit 12 (p. 44).

<sup>86</sup> Nye Report, ¶51.



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U.S. market would also lead to a statistically significant return in the TASE market, and vice versa. However, as shown in **Exhibit 5**, beyond the 12 days with earnings announcements Dr. Nye considers for his *Cammer* factor 5 analysis, Dr. Nye's event study model for the TASE market often produces an inconsistent number of days that have statistically significant Company-specific returns when compared to the U.S. market.<sup>87</sup> Specifically, Dr. Nye's event study model for the U.S. market identifies 32 days with statistically significant abnormal returns at the 95% confidence level. In contrast, Dr. Nye's event study model for the TASE market identifies only 17 days with statistically significant abnormal returns (i.e., just over half as many days). For example, on June 16, 2015 (Tuesday), Dr. Nye finds a statistically significant Company-specific return for the U.S. market. For the TASE market, on the other hand, he did not find any statistically significant Company-specific returns on any day in June 2015.<sup>88</sup> Dr. Nye's event study model therefore often indicates different Company-specific returns between the U.S. market and TASE market, which is inconsistent with what one would expect to find if both of these markets were "equally efficient" as Dr. Nye claims.<sup>89</sup>

40. Dr. Nye's event study analysis also ignores that, for some of the earnings announcements outside of U.S. market hours, a significant part of the price reaction was not incorporated into the TASE price until after the U.S. market opened. For example, **Exhibit 6A** shows intraday prices of Perrigo's shares on the TASE market and the U.S. market for Dr. Nye's April 25, 2017 event date. Dr. Nye analyzed a Perrigo press release with preliminary Q1 2017 financial results and other announcements dated April 25, 2017 at 4:03 PM ET, when both the U.S. market and TASE market were closed.<sup>90</sup> Dr. Nye's event study model identifies a statistically significant and

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<sup>87</sup> The TASE market is typically closed on Friday and Saturday, while the U.S. market is typically closed on Saturday and Sunday. See "TASE Trading Schedule," Tel-Aviv Stock Exchange, available at [https://info.tase.co.il/Eng/trading/trading\\_schedule/Pages/trading\\_schedule.aspx](https://info.tase.co.il/Eng/trading/trading_schedule/Pages/trading_schedule.aspx), accessed on April 9, 2019. See also **Appendix E** for more details on U.S. market and TASE market trading hours. By controlling for market and industry indices that are only available when the U.S. market is open (i.e., the S&P 500 market index and S&P Pharmaceuticals industry index), Dr. Nye's event study model is only capable of measuring abnormal returns for the TASE market on days when both the TASE and U.S. markets are open.

<sup>88</sup> Nye Report, Exhibit 11. See also **Appendix D**, which lists each of the 19 days from Dr. Nye's event study model that yield inconsistent results on the same day between the TASE market and U.S. market.

<sup>89</sup> Nye Report, ¶51.

<sup>90</sup> Perrigo Press Release, "Perrigo Announces Restatement Of Previously Issued Forms 10-K And 10-Q Financial Statements; Announces Select Preliminary Unaudited First Quarter 2017 Financial Results," dated April 25, 2017, available at <https://investor.perrigo.com/2017-04-25-Perrigo-Announces-Restatement-Of-Previously-Issued-Forms-10-K-And-10-Q-Financial-Statements-Announces-Select-Preliminary-Unaudited-First-Quarter-2017-Financial-Results>, accessed on April 2, 2019.

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positive Company-specific return for both the U.S. market and TASE market of +7.55% and +8.56%, respectively.<sup>91</sup>

41. Assuming the earnings announcement was consistent with positive Company-specific news and that the TASE was an efficient market (as Dr. Nye claims), one would expect that Perrigo's stock price would quickly begin to reflect this new information after the TASE market open at 2:45 AM ET on the morning of April 26, 2017.<sup>92</sup> As shown in **Exhibit 6A**, while Perrigo's price increased from the previous day's close at the TASE market open, it did not fully increase until after the U.S. market opened. An examination of the intraday prices on this event date clearly shows that the price of Perrigo shares on the TASE market did not fully respond to the earnings announcement until after the U.S. market had opened.

42. As another example, **Exhibit 6B** shows intraday prices of Perrigo's shares on the TASE market and U.S. market for Dr. Nye's November 10, 2016 event date. On this event date, at 1:50 AM ET, when both the TASE market and the U.S. market were closed, Perrigo released its earnings for Q3 2016 and announced that it had taken impairment charges with respect to the BCH Omega unit.<sup>93</sup> Dr. Nye's event study model identifies a statistically significant and positive Company-specific return for both the U.S. market and TASE market of +5.99% and +6.00%, respectively.<sup>94</sup>

43. Assuming the earnings announcement was consistent with positive Company-specific news and that the TASE was an efficient market (as Dr. Nye claims), one would expect Perrigo's stock price to increase quickly after the TASE market open at 2:45 AM ET on the morning of

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<sup>91</sup> Nye Report, Exhibit 12.

<sup>92</sup> The academic literature shows that security prices in efficient markets typically respond quickly to a broad range of information. For example, Greene and Watts (1996) find that the stock price response to earnings announcements during trading hours of companies listed on the NYSE are observed within approximately 21 minutes on average. See Greene, Jason T., and Susan G. Watts, "Price Discovery on the NYSE and the NASDAQ: The Case of Overnight and Daytime News Releases," *Financial Management* 25, no. 1 (1996): 19–42. Similarly, Brooks et al. (2003) find that the initial stock price reaction to the announcement of unanticipated events occurs within approximately 20 minutes. See Brooks, Raymond M., Ajay Patel, and Tie Su, "How the Equity Market Responds to Unanticipated Events," *Journal of Business* 76, no. 1 (2003): 109–133. Busse and Green (2002) also find that stock prices respond to news of call reports of CNBC analyst opinions in about 15 seconds. See Busse, Jeffrey A., and T. Clifton Green, "Market Efficiency in Real Time," *Journal of Financial Economics* 65 (2002): 415–437.

<sup>93</sup> Perrigo Press Release, "Perrigo Company plc Reports Third Quarter 2016 Financial Results," dated November 10, 2016, available at <https://investor.perrigo.com/2016-11-10-Perrigo-Company-plc-Reports-Third-Quarter-2016-Financial-Results>, accessed on April 9, 2019.

<sup>94</sup> Nye Report, Exhibit 12.

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November 10, 2016.<sup>95</sup> However, as shown in **Exhibit 6B**, while Perrigo's price initially increased from the closing price on the previous day, it then declined before increasing again after the U.S. market opened. This example further demonstrates that the price of Perrigo shares on the TASE market did not fully respond to the earnings announcement until after the U.S. market had opened.

**E. Dr. Nye ignores evidence that prices of Perrigo's shares on the TASE did not respond quickly to alleged corrective disclosures released outside of U.S. market hours**

44. For two of the alleged corrective disclosures (December 8, 2016 and May 2, 2017), the alleged corrective information was first released on a non-earnings date before or during TASE market hours when the U.S. market was closed.<sup>96</sup> Dr. Nye ignores (just as in his *Cammer* factor 5 analysis for the earnings announcement dates) that when this alleged corrective information was released, assuming it was important to investors and was the only new information released on this day, it was not quickly incorporated into the price of Perrigo shares on the TASE market before the U.S. market had opened.

45. On December 8, 2016, Plaintiffs allege a corrective disclosure when Perrigo's shares "dropped another 2.37% ... after Perrigo announced that it had to entirely restructure the BCH (Omega) unit."<sup>97</sup> The alleged corrective information on December 8, 2016 was first released at 6:36 AM ET, which is during trading hours on the TASE market and before trading hours in the U.S. market.<sup>98</sup> As shown in **Exhibit 7A**, Perrigo's share price on the TASE market initially *increased* after the alleged corrective information was first released after 6:36 AM ET. The 2.37% price decline Plaintiffs cite as the response to the alleged corrective information largely occurs hours later, after the U.S. market had opened. Despite the raw price decline of Perrigo's

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<sup>95</sup> See footnote 92 above, which provides a summary of academic literature that shows that security prices in efficient markets typically respond quickly to a broad range of information.

<sup>96</sup> The third non-earnings alleged corrective disclosure date is March 3, 2017; the TASE market was closed on this day. See **Exhibits 7A and 7B** for more detail on when the information was released.

<sup>97</sup> Complaint, ¶238.

<sup>98</sup> Perrigo Press Release, "Perrigo Announces Portfolio Review Developments And Intention To Restructure Branded Consumer Healthcare's Belgium Business," dated December 8, 2016, available at <https://investor.perrigo.com/2016-12-08-Perrigo-Announces-Portfolio-Review-Developments-And-Intention-To-Restructure-Branded-Consumer-Healthcares-Belgium-Business>, accessed on April 10, 2019.

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shares after the U.S. market open, according to Dr. Nye's event study model, the Company-specific price decline on December 8, 2016 is in fact not statistically significant for either the TASE or U.S. markets.<sup>99</sup> Assuming the alleged corrective information was important to investors and was the only new information released on this day, Dr. Nye's analysis ignores that the December 8, 2016 alleged corrective disclosure was not quickly incorporated into the price of Perrigo shares on the TASE market.

46. On May 2, 2017, Plaintiffs allege a corrective disclosure when "Perrigo revealed that its offices had been raided as part of an ongoing investigation by the United States Department of Justice into price-fixing in the pharmaceutical industry."<sup>100</sup> The alleged corrective information on May 2, 2017 was first released at 8:59 PM ET, which is after close of the U.S. market and before TASE market hours on the following day.<sup>101</sup> As shown in **Exhibit 7B**, even though the news came out hours before the TASE market opened on the next day, the price of Perrigo's shares on the TASE market did not decline until after the TASE had been open for several hours, and then later rebounded prior the U.S. market open. Assuming the alleged corrective information was important to investors and was the only new information released on this day, Dr. Nye's analysis ignores that the May 2, 2017 alleged corrective disclosure was not quickly incorporated into the price of Perrigo shares on the TASE market.

47. For his event study analysis, Dr. Nye ignores these fluctuations in prices on the TASE market that are inconsistent with market efficiency when the U.S. market was closed, and instead only considers prices when the U.S. market was also open. In doing so, Dr. Nye ignores evidence that is inconsistent with his conclusion that the TASE market is efficient. As a result, in addition to failing to establish that *Cammer* factors 1–4 are satisfied as discussed above, Dr. Nye's analysis of *Cammer* factor 5 also fails to establish that Perrigo's share price on the TASE market responded quickly and fully to new information. Dr. Nye's analysis therefore fails to establish market efficiency for the Perrigo shares traded on the TASE market throughout the Class Period.

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<sup>99</sup> Nye Report, Exhibit 11.

<sup>100</sup> Complaint, ¶243.

<sup>101</sup> Perrigo Press Release, "Perrigo Discloses Investigation," dated May 2, 2017, available at <https://investor.perrigo.com/2017-05-02-Perrigo-Discloses-Investigation>, accessed on March 19, 2019.

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**F. Even when the TASE market and the U.S. market were both open at the same time, analysis of intraday prices shows that “price parity” often did not hold between markets**

48. While Dr. Nye’s “price parity” analysis on the TASE is irrelevant for evaluating market efficiency given the small degree of overlap between the U.S. market and the TASE market trading hours, the evidence Dr. Nye presents in support of this “price parity” is also flawed.<sup>102</sup> Specifically, Dr. Nye purports to demonstrate that “Perrigo’s stock price in Israel traded in lockstep with the U.S. market throughout the Class Period on a currency-adjusted basis.”<sup>103</sup> Dr. Nye’s support for this statement is a chart that shows “intraday” prices on an axis ranging from \$50 to \$210 per share across all days during the years-long Class Period. It is impossible to discern from this overbroad “intraday” price chart whether there were actually any meaningful deviations in prices between the markets on any particular day.

49. As shown in **Exhibit 8**, foreign exchange-adjusted returns on the TASE market often differed by a meaningful magnitude from simultaneous returns on the U.S. market during the approximately one-hour period on days when both markets were open. Specifically, the average (median) absolute difference between the U.S. market return and the TASE market return is 20.1 (14.1) basis points. At the 95<sup>th</sup> percentile of the distribution, absolute returns were 61.9 basis points or more. Therefore, upon a more detailed examination, during the brief period of time when both markets were open at the same time, Dr. Nye’s purported “price parity” analysis ignores that there were often meaningful deviations in returns between the TASE market and U.S. market during the Class Period.<sup>104</sup>

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<sup>102</sup> Nye Report, ¶57.

<sup>103</sup> Nye Report, ¶57.

<sup>104</sup> As documented in **Exhibit 8**, the average absolute difference in daily synchronous returns is 20.1 basis points, or more than 1.6 times the average TASE bid-ask spread over the daily synchronous period, excluding the TASE close (12.0 basis points).

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**VI. Dr. Nye's proposed approach for measuring damages arising from the Section 14(e) claims makes unreasonable assumptions and ignores individualized inquiry required for measuring economic damages**

**A. Measurement of damages arising from Plaintiffs' Section 14(e) claims**

50. Plaintiffs allege that Perrigo made misrepresentations in order “[t]o discourage Perrigo shareholders from accepting Mylan’s offer” to purchase all of Perrigo’s outstanding shares, resulting in the tender of fewer than the 50% of Perrigo shares required for the offer to proceed.<sup>105</sup> Plaintiffs claim that Class Members incurred damages from the alleged misrepresentations because they “were prevented from fairly assessing Mylan’s offer, and were deprived of the opportunity to exchange their Perrigo shares for superior compensation in cash and stock.”<sup>106</sup>

51. From an economic perspective, damages arising from Plaintiffs’ theory should be the difference between the economic position of each Class Member in a hypothetical world where the alleged misrepresentations had been known (i.e., the “but-for” scenario) and that Class Member’s economic position in the actual world.<sup>107</sup> The economic position of Class Members in the but-for scenario depends on the opportunities that would have been available to them had the alleged “truth” about the alleged misrepresentations been known, as well as the choices they would have made and associated economic benefits they would have received given those opportunities. In the context of the Mylan tender offer, the opportunities that would have been available to Class Members in the but-for scenario depend on the terms of Mylan’s offer had the purported truth about the alleged misrepresentations been known. Given Mylan’s tender offer in the but-for scenario, each Class Member would have made independent decisions regarding whether to tender Perrigo shares.<sup>108</sup>

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<sup>105</sup> Complaint, ¶¶1, 8.

<sup>106</sup> Complaint, ¶300.

<sup>107</sup> Allen, Mark A., Robert E. Hall, and Victoria A. Lazear, “Reference Guide on the Estimation of Economic Damages,” *Reference Manual on Scientific Evidence* 3 (2011): 425–502.

<sup>108</sup> If more than 50% of Perrigo’s shares would have been tendered considering Mylan’s tender offer in the but-for scenario, I understand from counsel that Class Members would have had the opportunity (but not the obligation) to exchange their Perrigo shares for a combination of cash and Mylan shares. In the event that more than 80% of Perrigo’s shares were tendered, I understand from counsel that Mylan could have then “forced” the remaining shares to be tendered and effect a takeover of Perrigo. If more than 50% but less than 80% of Perrigo’s shares were tendered, I understand from counsel that Class Members who decided not to tender their shares would have retained their shares in Perrigo as a standalone company, where Mylan was a majority shareholder in Perrigo.



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52. The economic analysis relevant in assessing damages for a Section 14(e) claim is significantly different from the analysis in a typical Section 10(b) claim. For Section 10(b) claims, if the market is efficient, I understand plaintiffs are entitled to a presumption that a purchaser of the security could rely on the market price. Given that all Class Members actually purchased the security, Plaintiffs' theory presumes that they would have been better off had they purchased the security at a lower price. For assessing damages in a Section 10(b) case under Plaintiffs' theory, it can therefore be reasonable to assume that any investor who purchased the stock at an inflated price would have preferred to purchase the stock at a lower price, and individualized inquiry may not be necessary to determine whether or to what extent the Class Member was harmed.

53. For the Section 14(e) claims, however, there is no analogous concept of a single "but-for" market price at which every Perrigo shareholder would have accepted Mylan's tender offer for assessing damages. Rather, in a tender offer context, each shareholder makes an individual determination about whether the consideration from the tender offer is preferable to holding shares in the standalone company based on their own assessments of the risks and expected returns associated with these alternative choices.<sup>109</sup> For example, a shareholder may decide not to tender his or her shares based on the belief that other rival bidders could realize more synergies with the company and make a better offer.<sup>110</sup> In the but-for scenario, the question of whether each Class Member would have tendered shares given Mylan's tender offer depends on whether the consideration Mylan would have offered was preferable to that individual Class Member's assessment of the opportunity to hold Perrigo's shares as a standalone company.

54. Determining economic damages to Class Members requires an understanding of whether each Class Member would have tendered shares under the terms of Mylan's tender offer in the

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<sup>109</sup> Dodd (1980) states that "[i]n tender offers ... [t]he decision to accept or reject the offer is made by each individual stockholder and the success or failure of the offer depends upon the proportion of stockholders tendering their shares." See Dodd, Peter, "Merger Proposals, Management Discretion, and Stockholder Wealth," *Journal of Financial Economics* 8 (1980): 105–137. Hirshleifer and Titman (1990) also point out that "shareholders may have specific attributes such as liquidity or tax considerations that affect their tendering decisions. For these reasons, the outcome of an offer is generally uncertain." See Hirshleifer, David, and Sheridan Titman, "Share Tendering Strategies and the Success of Hostile Takeover Bids," *Journal of Political Economy* 98, no. 2 (1990): 295–324.

<sup>110</sup> Bradley, Desai, and Kim (1983) state that "[i]f the present value of [an] anticipated future bid exceeds the value of the [current] outstanding [tender] offer, then target stockholders rationally will let the outstanding offer expire." See Bradley, Michael, Anand Desai, and E. Han Kim, "The Rationale Behind Interfirm Tender Offers: Information or Synergy?" *Journal of Financial Economics* 11 (1983): 183–206.

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but-for scenario. For those Class Members who would have tendered in the but-for scenario, economic damages are the difference between the value of the consideration they would have received in the tender offer and the value of the Perrigo shares they actually held as a standalone company. However, for those Class Members who would have chosen not to tender their shares in the but-for scenario, their preferred position in both the but-for scenario and the actual world was to hold Perrigo shares as a standalone entity (regardless of the alleged misrepresentations). If these Class Members were obligated to tender their shares in the but-for scenario, they would have considered themselves worse off. From an economic perspective, whether each Class Member was harmed (and the extent of the harm) depends on whether that Class Member would have tendered shares knowing the purported truth about the alleged misrepresentations. An approach capable of measuring economic damages arising from the Section 14(e) claims in this matter therefore must be able to determine whether each individual Class Member would have decided to tender his or her shares in the but-for scenario.

**B. Dr. Nye's proposed damages approach is not based on any widely accepted methodology used in the peer-reviewed academic literature**

55. Dr. Nye claims that Section 14(e) damages “can be reasonably determined on a Class-wide basis and in a manner consistent with Plaintiffs’ theory of liability” as the difference between the value of Mylan’s offer “[i]mmediately prior to the expiration of the tender offer” and “the price of Perrigo stock immediately following the expiration of the tender offer.”<sup>111</sup> However, the only support Dr. Nye provides for his proposed damages approach is a legal opinion, which suggests a damages formula as “the difference between the price for which shares were tendered (or not tendered) and the ‘genuine’ value of those shares,” but does not support the specific inputs Dr. Nye has chosen for calculating damages.<sup>112</sup>

56. To my knowledge, Dr. Nye’s proposed approach for measuring Section 14(e) damages is not based on any methodology that is widely used or accepted in the peer-reviewed academic

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<sup>111</sup> Nye Report, ¶69.

<sup>112</sup> Dr. Nye states that it is his “understanding that per-share damages under Section 14(e) may be measured as ‘the difference between the price for which shares were tendered (or not tendered) and the ‘genuine’ value of those shares’” based on the legal opinion in *Hundahl v. United Benefit Life Ins. Co.*, 465 F. Supp. 1349, 1369 (N.D. Tex. 1979). See Nye Report, ¶68.



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literature. For example, in contrast to an event study approach for evaluating Section 10(b) claims, which is often used in the academic literature and is used by Dr. Nye to evaluate market efficiency, Dr. Nye has not pointed to any well-established, peer-reviewed methodologies to support his general approach or choice of inputs into his Section 14(e) damages methodology.<sup>113</sup> Further, Dr. Nye does not present any independent economic analysis to validate the assumptions he asserts in his proposed damages approach, or that the resulting amount of damages measured using his approach would capture the amount of actual economic harm incurred by Class Members.<sup>114</sup> Dr. Nye therefore fails to establish that his proposed approach provides an economically sound measure of damages incurred by Class Members that is consistent with Plaintiffs' theory of liability.

**C. Dr. Nye's proposed damages approach makes the speculative and unreasonable assumption that Mylan would have made the same tender offer in the but-for scenario**

57. Dr. Nye's proposed damages approach relies on the speculative and unreasonable assumption that Mylan would have made the same tender offer in the but-for scenario that it made in the actual world.<sup>115</sup> Dr. Nye does not consider that, if Mylan had known the purported truth about the alleged misrepresentations, it might not have made an offer for Perrigo shares or it might have offered less than it did in the actual world.

58. From an economic perspective, Dr. Nye's assumption that Mylan would have offered the same terms to Perrigo shareholders in the but-for scenario is inconsistent with Plaintiffs' claim that Mylan's offer would have represented "superior compensation in cash and stock" to Class Members in the but-for scenario.<sup>116</sup> Plaintiffs' theory implies that Perrigo shareholders would have changed their decision to tender their shares if they had known the purported truth about the alleged misrepresentations. Yet, Dr. Nye illogically assumes that Mylan would not have

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<sup>113</sup> See, e.g., Campbell, John Y., Andrew W. Lo, and A. Craig MacKinlay, *The Econometrics of Financial Markets*, (New Jersey: Princeton University Press, 1997): 150–152.

<sup>114</sup> In his deposition testimony, Dr. Nye states that his inputs are "based on [his] economic analysis." However, Dr. Nye does not further explain specifically what "economic analysis" he performed. See Nye Deposition, pp. 146:9–147:20. Dr. Nye in fact admits that "[he has not] done a thorough, rigorous damages analysis." See Nye Deposition, p. 153:4–6.

<sup>115</sup> Nye Deposition, p. 170:15–20.

<sup>116</sup> Complaint, ¶300.

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changed its behavior if it had known the purported truth about the alleged misrepresentations. In effect, Dr. Nye assumes that the purported truth would be meaningful to shareholders' evaluation of the tender offer, but not to Mylan's decision to make the tender offer in the first place.

59. For purposes of their Section 10(b) claims, Plaintiffs assert that the alleged misrepresentations artificially inflated the price of Perrigo's stock, and that the disclosure of the purported truth about the alleged misrepresentations caused a price decline, eliminating this inflation.<sup>117</sup> Nevertheless, Dr. Nye assumes in his proposed Section 14(e) damages methodology that Mylan would have still made the same offer for Perrigo even if the purported truth about the alleged misrepresentations had been disclosed. In effect, Dr. Nye is assuming that the "premium" offered by Mylan over the market price of Perrigo shares in the tender offer would have also increased by the amount of the alleged inflation in Perrigo's stock price.<sup>118</sup> Given Plaintiffs' allegations, it is unreasonable for Dr. Nye to assume that Mylan would have made the same tender offer for Perrigo's shares, even while assuming the market would have allegedly assessed a lower market price for Perrigo shares in the but-for scenario.

60. If the purported truth about the alleged misrepresentations was meaningful to Mylan in the but-for scenario, as Plaintiffs allege it would have been for Perrigo shareholders, Dr. Nye also does not consider potential consequences that could have made the Perrigo tender offer less attractive to Mylan. For example, Dr. Nye does not consider that regulators may have required further divestitures for approving Mylan's proposed combination with Perrigo, reducing the value of the Perrigo tender offer from Mylan's perspective.<sup>119</sup> Similarly, Dr. Nye does not consider that Mylan may have found Teva's separate takeover offer (which Teva made for Mylan at the same time Mylan began pursuing Perrigo) a better strategic alternative relative to a

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<sup>117</sup> Complaint, ¶¶282–290.

<sup>118</sup> In his deposition testimony, Dr. Nye claims that he is not "double counting" damages arising from the Section 10(b) claims in his proposed approach for measuring damages from the Section 14(e) claims. *See* Nye Deposition, 154:12–22.

<sup>119</sup> The U.S. Federal Trade Commission required Mylan to agree to sell its rights to certain generic drug assets if the tender offer succeeded in order to alleviate concerns that the acquisition would reduce competition in the markets for those drugs. On November 3, 2015, "Mylan N.V. ... agreed to sell the rights and assets related to seven generic drugs in order to settle FTC charges that its proposed acquisition of Perrigo Company plc would be anticompetitive." *See* "FTC Requires Mylan to Sell Rights to Seven Generic Pharmaceuticals as a Condition of Acquiring Perrigo Company," U.S. Federal Trade Commission, dated November 3, 2015, available at <https://www.ftc.gov/news-events/press-releases/2015/11/ftc-requires-mylan-sell-rights-seven-generic-pharmaceuticals>, accessed on April 12, 2019.

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tender offer for Perrigo.<sup>120</sup> As these examples illustrate, Dr. Nye's assumption that Mylan would have made the same decisions with respect to its tender offer for Perrigo ignores potential consequences in Plaintiffs' but-for scenario that could have made Perrigo less attractive to Mylan assuming Plaintiffs' alleged but-for scenario.

61. Further, Dr. Nye has not articulated any methodology for determining whether Perrigo shareholders would have ultimately accepted Mylan's tender offer. In fact, commentary from analysts reflected that Perrigo shareholders were unlikely to accept Mylan's offer.<sup>121</sup> In addition, as shown previously in **Exhibit 1**, the implied value of Mylan's cash and stock offer for Perrigo's shares declined significantly during the period it was pursuing Perrigo, from about \$246.35 per share on April 29, 2015 (Mylan's early offer made before obtaining its shareholders' approval) to about \$174.36 per share on November 12, 2015 (before the tender offer failed). Accordingly, the premium of Mylan's offer relative to the market price of Perrigo's shares declined from 32% to 11% during this same period. Despite the fact that Mylan's final offer still represented a premium over the current stock price, approximately 60% of shareholders ultimately did not tender their shares.<sup>122</sup> In a but-for scenario where Mylan would have made an even lower tender offer, Dr. Nye does not articulate any methodology that is able to establish

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<sup>120</sup> Analysts viewed Teva's offer for Mylan as a preferable alternative to Mylan's proposed tender offer for Perrigo, and expressed skepticism that Mylan's offer for Perrigo would be beneficial for Mylan's shareholders. *See* Citi, "Alert: Maintaining Neutral Stance as TEVA Likely To Acquire AGN's Generics Business and Walk Away from MYL," July 26, 2015. On July 27, 2015, Mylan's stock price declined by 15% as news was released that Teva was no longer pursuing a bid for Mylan. *See* Teva Press Release, "Teva Withdraws Proposal to Acquire Mylan," dated July 27, 2015, available at [https://www.tevapharm.com/news/teva\\_withdraws\\_proposal\\_to\\_acquire\\_mylan\\_07\\_15.aspx](https://www.tevapharm.com/news/teva_withdraws_proposal_to_acquire_mylan_07_15.aspx), accessed on March 22, 2019.

<sup>121</sup> Analysts viewed the Mylan offer as unlikely to succeed: "At this point, we think there is a ~40% chance either MYL or another suitor acquires PRGO." *See* Jefferies LLC, "Perrigo (PRGO): PRGO Rejects MYL's Bid; Generics Bail Out CHC Again While Guidance Looks Solid," April 22, 2015; "In our view, MYL will have to materially improve the cash portion of its offer to entice PRGO to sell." *See* Jefferies LLC, "Pharmaceuticals/Specialty: MYL's Formal Bid for PRGO Fails to Impress; Will Teva Go Hostile?," April 24, 2015; "We still believe that the offer will need to be in the \$225-250 range for it to be considered attractive to Perrigo shareholders." *See* UBS Investment Bank, "U.S. Specialty Pharmaceuticals: Not Surprised by Perrigo's Rejection," April 24, 2015; "Some, including us, view the likelihood of MYL-PRGO deal as low and have questions about the financial profile of the pro forma, especially if MYL has to raise its offer price." *See* Leerink Partners LLC, "Mylan, Inc.: In-line 2Q, Focus on Consolidation, PRGO or Alternative Asset," August 7, 2015; "Following today's event – and with 30 days until tender close – we continue to see lackluster financial/strategic benefits for PRGO." *See* Jefferies LLC, "Perrigo (PRGO): Thoughts on MYL's Presentation to PRGO Investors," October 13, 2015.

<sup>122</sup> Nye Report, ¶66.

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whether and to what extent Perrigo shareholders would have been more inclined to tender their shares.

**D. Even under Dr. Nye's unreasonable assumptions about the Mylan tender offer in the but-for scenario, his proposed inputs for calculating damages do not produce a reasonable measure of economic damages to Class Members**

62. Dr. Nye suggests that Section 14(e) damages can be calculated using the following two inputs into his proposed damages formula: (i) the value of Mylan's offer "[i]mmediately prior to the expiration of the tender offer," and (ii) "the price of Perrigo stock immediately following the expiration of the tender offer."<sup>123</sup> However, as discussed above, Dr. Nye does not articulate an economically sound basis for either of these proposed inputs. Although Dr. Nye offers that "if the trier of fact ultimately determines" that other prices should be used, this does not cure his failure to articulate how it will be possible to measure damages arising from the Section 14(e) claims using any scientific and reliable methodologies.<sup>124</sup>

63. With respect to the first input into his proposed damages calculation, Dr. Nye simply asserts, without support, that "an objective estimate of the price at which Perrigo shares would have been tendered" can be derived from the market price of Mylan at market close on November 12, 2015, "[i]mmediately *prior to* the expiration of the tender offer."<sup>125</sup> However, Dr. Nye ignores that Class Members would have received Mylan's shares in the but-for scenario *upon acceptance* of the tender offer on November 13, 2015.<sup>126</sup> In effect, Dr. Nye makes the unreasonable assumption that the acceptance of the tender offer by Perrigo's shareholders in the but-for scenario would not have had any impact on the price of Mylan's shares conveyed to Perrigo's shareholders. Dr. Nye has not articulated any methodology for determining the price of Mylan's shares in the but-for scenario upon acceptance of the tender offer.<sup>127</sup>

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<sup>123</sup> Nye Report, ¶69.

<sup>124</sup> Nye Report, ¶70.

<sup>125</sup> Nye Report, ¶69; Nye Deposition, pp. 145:25–146:8 (emphasis added).

<sup>126</sup> Nye Report, ¶69.

<sup>127</sup> According to Dr. Nye's deposition testimony, he chose the inputs for his proposed damages analysis "based on [his] economic analysis." See Nye Deposition, p. 146:9–21. Dr. Nye, however, did not specify any further details of his "economic analysis," except for simply stating that he "used the opening just because it seemed like a good, clean ... event [that] happened before the open." See Nye Deposition, pp. 149:13–150:1.

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64. Contrary to Dr. Nye's unsupported assumption that the price of Mylan's shares would have been unchanged, available evidence suggests that the price would have in fact likely declined in the but-for scenario where the tender offer had been accepted by Perrigo shareholders. The fact that the price of Mylan's shares increased after the expiration of the tender offer suggests that the market would have viewed the alternative outcome of a successful offer as negative news, which could have resulted in a stock price decline. **Exhibit 9** shows that Mylan's stock price, upon news that the tender offer failed before market open on November 13, 2015, increased approximately 10% from \$43.20 at U.S. market close on November 12, 2015 to \$47.62 at U.S. market open on November 13, 2015.<sup>128</sup> Consistent with this observed price increase for Mylan's shares, commentary from analysts confirms that the expired tender offer for Perrigo's shares was positive news for Mylan shareholders.<sup>129</sup> As shown in the exhibit, there were no significant changes in market and industry indices during this same period. In addition, I have not identified other firm-specific information about Mylan released on this same day that would be expected to explain the increase in the price of Mylan's shares.

65. Given that the price of Mylan's shares increased in response to the news that the tender offer failed, logically, Mylan's shares would have likely declined in a but-for scenario where Mylan's tender offer was instead accepted by Perrigo shareholders. As a result, even under Dr. Nye's unreasonable assumption that Mylan would have offered the same number of shares of Mylan for each Perrigo share in the tender offer in the but-for scenario, a lower price for Mylan's shares in the but-for scenario would have reduced the overall value of the Mylan shares

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<sup>128</sup> The S&P 500 and Industry Index illustrated on the chart are the same indices used by Dr. Nye in his event study model to control for market and industry price movements. Dr. Nye uses the S&P 500 Index to approximate the market. He uses the constituents of the S&P Pharmaceuticals Index as of January 2014 to control for Perrigo price movements related to the industry. He excludes Perrigo from this index throughout the Class Period and excludes Mylan through November 13, 2015. Endo International is in the S&P Pharmaceuticals Index as of the start of the Class Period, but was added after January 2014, and therefore is excluded from Dr. Nye's industry index. The returns are calculated every five minutes throughout the trading day and are indexed to Mylan's closing price on November 12, 2015. See Nye Report, ¶¶75–76.

<sup>129</sup> According to a Barclays analyst report from November 13, 2015, it expected Mylan shares "to trade up today on the news that its hostile bid for [Perrigo] did not succeed. ... While the [Perrigo] deal made sense strategically, in our view, the deal's financial benefits were less certain ... and so it was less popular with [Mylan] shareholders." See Barclays, "Mylan Inc.: Moving on from PRGO," November 13, 2015. Raymond James analysts noted that while the Mylan-Perrigo deal "was never a particularly bad deal, it was just an expensive one and a transaction that simply couldn't deliver expected financial metrics in light of collapsed group valuations and significant relative valuation compression in [Mylan] shares." See Raymond James & Associates, "Mylan N.V.: Ding Dong the Deal is Dead – Mylan Looks Ahead Absent Perrigo," November 13, 2015.

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conveyed to Class Members. To the extent that the market price of Mylan would have declined after the tender offer was accepted in the but-for scenario, Dr. Nye's proposed damages approach overstates Section 14(e) damages to Class Members.<sup>130</sup> Dr. Nye has therefore not provided a reasonable methodology that is capable of determining the value of Mylan's shares upon acceptance of the tender offer in the but-for scenario.

66. With respect to the second input into his proposed damages calculation, Dr. Nye purports to measure "investors' consensus as to the value of Perrigo's 'standalone prospects'" based on "the price of Perrigo stock immediately following the expiration of the tender offer (*i.e.*, at the opening of U.S. trading on November 13, 2015)."<sup>131</sup> However, Dr. Nye's proposed damages calculation is sensitive to his unsupported assertion that the opening price of Perrigo's shares after the expiration of the tender offer reflects "investors' consensus as to the value of Perrigo's 'standalone prospects.'"<sup>132</sup>

67. As shown in **Exhibit 10**, compared to the U.S. market opening price of \$140.60, Dr. Nye ignores that Perrigo's share price quickly rebounded within the first several minutes of the market opening, trading as high as \$149.16 during the day before closing at \$146.90. Rather than reflecting "investors' consensus" of Perrigo's standalone value as Dr. Nye suggests, the lower opening price is in fact more consistent with commentary from analysts suggesting that "[Perrigo] traded down ... as short-term focused investors exited the stock."<sup>133</sup> In addition, by selecting a market price that prevailed at only one brief point in time, Dr. Nye likely significantly understates the price that many investors actually sold their shares at, even if they sold on this

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<sup>130</sup> In addition to the possibility that Mylan's share price would have declined if the tender offer was successful, ongoing shareholder lawsuits against Mylan allege that Mylan's share price might have been artificially inflated during the time its Perrigo tender offer was outstanding. *See, e.g.*, Deposition of Isaac Drucker, dated March 4, 2019 ("Drucker Deposition"), p. 82:4–7.

<sup>131</sup> In his deposition testimony, Dr. Nye could not identify any peer-reviewed studies that have addressed how to measure the price of a target company after a failed tender offer. *See* Nye Deposition, p. 150:3–12 ("Q. Are you aware of any literature that would address the question of what price to use to measure the price of the tendered after a failed tender offer? A. No, I don't think that's really studied a whole lot. There's mergers and acquisitions literature. But specific cases, I mean, I don't know of any papers that cover that."); Nye Report, ¶69.

<sup>132</sup> Nye Report, ¶69.

<sup>133</sup> UBS Investment Bank, "Perrigo: Time to Refocus on Fundamentals," November 15, 2015 ("With the Perrigo shareholders rejecting the Mylan bid, [Perrigo] traded down on Friday as short-term focused investors exited the stock. Perrigo should now start to trade on fundamentals again, which we believe remain strong. As management executes on the business, we expect [Perrigo] to grind higher.").



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same day.<sup>134</sup> Indeed, Dr. Nye acknowledged that mispricing can occur during a trading day.<sup>135</sup> As an illustration, had Dr. Nye instead chosen the *closing* price on November 13, 2015 to measure Perrigo's standalone value, his proposed calculation of per-share damages would have been approximately 19% lower.<sup>136</sup> The high degree of sensitivity of Dr. Nye's proposed damages calculation to his unsupported assumption about Perrigo's standalone value suggests that his proposed damages approach is unreasonable and would likely overstate damages to Class Members.

68. In comparison to the \$140.54 standalone value of Perrigo assumed in Dr. Nye's proposed damages calculation, analyst commentary reflected more optimistic valuations for Perrigo's "standalone" value. For example, Jefferies set a price target of \$209, noting that "[w]e are very pleased with this outcome since we have always argued that [Perrigo]'s standalone prospects are significantly more attractive than what was embedded in the [Mylan] offer."<sup>137</sup> Bank of America Merrill Lynch and UBS also offered optimistic assessments of Perrigo's standalone value and issued price targets of \$223 and \$200, respectively.<sup>138</sup> Dr. Nye ignores that Class Members who

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<sup>134</sup> Analysts viewed the failed Mylan tender offer as positive news for Perrigo, while conveying optimistic assessments of Perrigo's standalone value. See RBC Capital Markets, "MYL Tender for PRGO fails - where we see both stocks trading and what this means from here," November 13, 2015 ("[Perrigo] likely to see a pull-back into the low \$140's but we see the stock settling in the \$150 to \$155 range. The removal of the [Mylan] bid and impact from the exit of event driven position will drive initial weakness but we think the stock can settle not far from currently levels consistent with our 10/28 report."); Jefferies LLC, "Perrigo (PRGO): PRGO Successfully Fends Offs the MYL Tender Offer; Now Back to Business As Usual," November 13, 2015 ("We are very pleased with this outcome since we have always argued that [Perrigo's] standalone prospects are significantly more attractive than what was embedded in the [Mylan] offer. ... The 'Right' outcome has been reached, in our view; we continue to view [Perrigo] as a unique high quality asset in the heavily scrutinized spec Pharma sector.").

<sup>135</sup> Nye Deposition, p. 109:7-11.

<sup>136</sup> Dr. Nye's measure of per-share damages is calculated using the purported price at which "Perrigo shares would have been tendered" (\$174.36) less the "genuine" value of Perrigo (\$140.54). See Nye Report, ¶69. Dr. Nye then arrives at per-share damages of \$33.82. However, if Dr. Nye had instead used the closing price of Perrigo (\$146.90) to estimate the "genuine" value of Perrigo shares, his per-share damages would decrease to \$27.46, a decline of approximately 19% driven solely by the price he chose as the "genuine" value of Perrigo shares.

<sup>137</sup> Jefferies LLC, "Perrigo (PRGO): PRGO Successfully Fends Offs the MYL Tender Offer; Now Back to Business As Usual," November 13, 2015.

<sup>138</sup> Bank of America Merrill Lynch, "Perrigo Company: My-ri-gone; a particularly good buying opportunity on PRGO," November 13, 2015 ("[S]tandalone [Perrigo] remains well-positioned to drive value over time with its top-5 global offering on over-the-counter products ... and its niche generic prescription (Rx) pharma business. ... Our DCF-based [price objective] is now \$223 vs. \$221. As such, we believe the pullback in the shares today presents a particularly good buying opportunity."); UBS Investment Bank, "Perrigo: Time to Refocus on Fundamentals," November 15, 2015.

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shared views of Perrigo's standalone value similar to these analysts are not likely to have considered themselves harmed by the failed tender offer.

**E. Dr. Nye's proposed damages approach ignores individualized inquiry required for measuring economic damages**

69. As discussed above, in the context of Mylan's tender offer, Class Members would have made independent determinations based on the information available to them regarding whether the consideration offered by Mylan exceeded their own assessment of Perrigo's standalone value, or the prospect of a better offer from other potential bidders.<sup>139</sup> The fact that Perrigo shareholders declined to tender approximately 60% of Perrigo shares for Mylan's offer,<sup>140</sup> despite the premium offered to the market price of Perrigo's shares, is indicative of the individualized nature of the decision faced by Perrigo shareholders.<sup>141</sup> Similarly, in a but-for scenario, each Class Member would have made an independent determination whether to tender shares, but with additional information about the putative truth of the alleged misrepresentations. Because Class Members' economic positions depend on their decisions to tender their shares in the but-for scenario, in order to measure economic damages to Class Members, individualized

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<sup>139</sup> See, e.g., Dodd, Peter, "Merger Proposals, Management Discretion, and Stockholder Wealth," *Journal of Financial Economics* 8 (1980): 105–137; Bradley, Michael, Anand Desai, and E. Han Kim, "The Rationale Behind Interfirm Tender Offers: Information or Synergy?" *Journal of Financial Economics* 11 (1983): 183–206; Hirshleifer, David, and Sheridan Titman, "Share Tendering Strategies and the Success of Hostile Takeover Bids," *Journal of Political Economy* 98, no. 2 (1990): 295–324.

<sup>140</sup> Deposition testimony from Lead Plaintiffs' representatives indicates that several Lead Plaintiffs did not tender their shares, including Clal Insurance Company Ltd. ("Clal Insurance"), Clal Pension and Provident Ltd. ("Clal Pension"), Atudot Pension Fund for Employees and Independent Workers Ltd. ("Atudot" and, with Clal Insurance and Clal Pension, "Canaf-Clal"), Meitav DS Provident Funds and Pension Ltd. ("Meitav"), Migdal Insurance Company Ltd. ("Migdal Insurance"), and Migdal Makefet Pension and Provident Funds Ltd. ("Migdal Makefet" and, with Migdal Insurance, "Migdal"). See, e.g., Drucker Deposition, p. 87:3–22; Deposition of Liat Cohen-David, dated March 5, 2019, p. 65:11–13; Deposition of Yuval Beer Even, dated March 6, 2019 ("Beer Even Deposition"), pp. 83:24–84:4. The public press also discussed that several large Perrigo shareholders did not tender their shares. See, e.g., "Mylan Loses Hostile Bid for Perrigo," Dow Jones Institutional News, dated November 13, 2015 ("[i]n the end, nearly all the big mutual funds whose votes would determine the outcome broke for Perrigo. Among the largest such funds, Mylan won support from only Vanguard Group, according to people familiar with the matter. BlackRock Inc., State Street Global Advisers, Fidelity Management & Research and others didn't tender, the people said.").

<sup>141</sup> Deposition testimony from Lead Plaintiffs' representatives indicates that their reasons for not tendering shares were individualized. For example, a representative from Migdal noted that there were concerns about Mylan taking a controlling share in Perrigo given concerns about the quality of corporate governance at Mylan. See Beer Even Deposition, pp. 84:15–85:22. In addition, Mr. Uri Bar Tov of Canaf-Clal indicated that Canaf-Clal also was concerned about "inadequate or problematic" corporate governance at Mylan. See Deposition of Uri Bar Tov, dated March 4, 2019, p. 63:6–15.



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inquiry would be required to understand which Class Members would have tendered their shares had they known the purported truth about the alleged misrepresentations. Dr. Nye ignores this important consideration in measuring economic damages, and instead unreasonably assumes that all Class Members would have tendered their shares in the but-for scenario.<sup>142</sup>

70. In addition to understanding which Class Members would have tendered their shares, determining the economic position of Class Members in the but-for scenario also requires an understanding of the total number of shares that would have been tendered. I understand from counsel that if more than 50% but less than 80% of Perrigo shares would have been tendered in the but-for scenario, Mylan would have become a majority shareholder in Perrigo; however, Mylan would have been unable to force a short-form takeover of Perrigo under Irish law.<sup>143</sup> In such a scenario, I understand from counsel that Class Members who tendered their Perrigo shares would have received the consideration Mylan had offered (consisting of cash and Mylan shares), while other Class Members who declined to tender their shares would continue to hold the same Perrigo shares they held in the actual world, as illustrated in the table below. Since the holdings of different Class Members after the tender offer would depend on their decision to tender their shares, determining their economic positions in the but-for scenario for measuring economic damages would require individualized inquiry.

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<sup>142</sup> Nye Report, ¶69. In his deposition testimony, Dr. Nye states that he is not “aware of any peer-reviewed methodology to determine whether any specific shareholder of Perrigo would or would not have tendered their shares” and that it was “beyond the scope of [his] report.” *See* Nye Deposition, pp. 170:21–171:3.

<sup>143</sup> Perrigo Schedule 14D-9, dated September 17, 2015, p. 12. *See also* UBS Investment Bank, “U.S. Specialty Pharmaceuticals: Perrigo Comes Out Swinging Hard,” September 17, 2015; Jefferies LLC, “PRGO Thoroughly Rejects MYL’s Offer; 4 Key Takeaways,” September 17, 2015; “Dealpolitik: Mylan Bid Shines Spotlight on Fundamental M&A Governance Question,” Dow Jones Institutional News, dated September 14, 2015.

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### Holdings of Class Members in the But-For Scenario

Total Shares Tendered	Class Member's Decision to Tender	
	Tender	Do Not Tender
0% to < 50%	Perrigo Shares	Perrigo Shares
50% to < 80%	Cash and Mylan Shares	Perrigo Shares
80%+	Cash and Mylan Shares	Cash and Mylan Shares

71. If more than 80% of Perrigo shares would have been tendered in the but-for scenario, the holdings of Class Members would not depend on whether they would have tendered their shares in the but-for scenario because all Class Members would have received the cash and Mylan shares once Mylan “forced” tender of the remaining shares in a short-form takeover. However, Class Members who would have otherwise decided not to tender their shares, would have viewed themselves as worse off in this but-for scenario. Therefore, even if Plaintiffs could establish that more than 80% of shares would have been tendered, whether an individual Class Member incurred economic damages in the but-for scenario still depends on that Class Member’s individual preference to either hold the Perrigo shares he or she held in the actual world, or exchange the Perrigo shares for cash and Mylan shares.

72. Dr. Nye’s proposed damages methodology further ignores that Class Members may be situated differently from each other depending on potential offsetting returns on their holdings of Mylan shares. As shown in **Exhibit 11**, several institutional investors held significant positions in *both* Mylan and Perrigo shares. Specifically, of the top 25 institutional investors in Perrigo as of September 30, 2015, 19 also held a position in Mylan.<sup>144</sup> Each Class Member who held both Perrigo and Mylan shares could have received significantly different returns on the combined holdings in Perrigo and Mylan under Dr. Nye’s assumed but-for scenario in comparison to actual returns.

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<sup>144</sup> Based on holdings reported in 13-F filings as of September 30, 2015, accessed from Thomson Reuters.

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73. For example, assuming Wellington Management Company LLP had the same holdings in Perrigo and Mylan at the time when the tender offer failed, its actual return on these combined holdings would have been +5.82% as of market open on November 13, 2015. In contrast, taking Dr. Nye's assumptions about a but-for scenario where each Perrigo share becomes valued at \$174.36 and the price of Mylan shares would have been unchanged, the return on the same combined holdings would have only been +2.46% during the same period.<sup>145</sup> In other words, under Dr. Nye's own assumptions about the but-for scenario, Wellington Management Company LLP would have earned a lower return under Dr. Nye's assumed but-for scenario on its combined holdings of Perrigo and Mylan shares than it did in the actual world. As this example illustrates, Dr. Nye fails to consider that individualized inquiry would therefore be required in order to determine the economic position of Class Members due to potential offsetting returns on their holdings of Mylan shares.

**VII. Dr. Nye has not articulated a methodology that can measure damages arising from the Section 10(b) claims for U.S. purchasers and TASE purchasers caused only by the actionable alleged misrepresentations**

**A. Measurement of damages arising from Plaintiffs' Section 10(b) claims**

74. In Section 10(b) securities class actions, I understand that "out-of-pocket" per share damages are calculated as the stock price inflation on the purchase date, less any stock price inflation on the sale date. Inflation on each date during the class period is measured as the actual stock price at that time less the "but-for" price that would have prevailed at that same time absent the alleged misrepresentations. Since changes in the level of inflation between the purchase and sale date serve as the only inputs for measuring damages, an appropriate damages methodology must be able to measure the amount of inflation attributable only to the actionable alleged misrepresentations on each day of the class period.

75. To measure inflation, Plaintiffs must first identify the information that the company both could have and should have disclosed but for the alleged fraud ("but-for" disclosures), as well as the point in time at which such disclosures could have and should have been made. The incremental information that these but-for disclosures would have conveyed to the market,

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<sup>145</sup> See **Exhibit 11** for more details on these calculations.

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compared to what the company actually disclosed, forms the basis for any analysis of what the stock price would have been absent the alleged misrepresentations. Further, given that the information contained in the but-for disclosures could have different implications for the value of the company over time, the amount of inflation arising from the alleged misrepresentations can also change over time, even for the same but-for disclosure.

76. At the class certification stage, I understand that Plaintiffs are not required to demonstrate that these economic losses on the alleged corrective disclosures were caused by the purported revelation of truth related to the alleged misrepresentations.

77. However, I understand that Plaintiffs are required at this stage to articulate a methodology that is capable of measuring class-wide damages in a manner consistent with their theory of liability. An appropriate damages approach therefore must be capable of measuring the incremental value of the alleged but-for disclosures at each point in time during the Class Period. In addition, an appropriate damages approach must be capable of disaggregating the amount of stock price inflation that was dissipated upon release of each alleged corrective disclosure due only to the revelation of purported truth related to the actionable alleged misrepresentations, and not due to other potential “confounding” information.

**B. Dr. Nye does not provide any specific methodology that can be used to measure damages on a class-wide basis for the U.S. purchasers and TASE purchasers**

78. Dr. Nye has not articulated any specific approach for measuring damages in this matter consistent with Plaintiffs’ theory of liability with respect to Plaintiffs’ Section 10(b) claims for the U.S. purchaser class or the TASE purchaser class. Instead, Dr. Nye claims simply that “[p]rice inflation may be measured on a Class-wide basis by analyzing the change in a security’s price caused by a corrective disclosure and/or the materialization of a concealed risk” using “[a]n event study” or potentially other “tools we have as economists.”<sup>146</sup> Except for Dr. Nye’s vague references to potential “tools” that *could* be used, he offers no specifics in his report on *how* it will actually be possible to appropriately measure damages. Indeed, as discussed below, Dr. Nye does not articulate how he proposes to address a number of difficulties involved in measuring

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<sup>146</sup> Nye Report, ¶63; Nye Deposition, p. 123:24–5 (“[Damages] can be estimated using the tools we have as economists...”).

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damages in this case that will need to be addressed. As a result, Dr. Nye fails to demonstrate that his proposed damages approach can be applied in a manner consistent with Plaintiffs' theory of liability.

79. Dr. Nye's proposed event study approach for measuring inflation appears to involve calculating the Company-specific change in Perrigo's share price on each alleged corrective disclosure date, which would then be "carried back" to the beginning of the Class Period.<sup>147</sup> In his deposition testimony, Dr. Nye claims that he has not "performed a rigorous or thorough analysis of ... price inflation or any analysis of price inflation," but "[i]n many instances" the price changes on the alleged corrective disclosures are "carried back constant."<sup>148</sup> Beyond suggesting that a constant inflation band could be constructed based on the Company-specific price changes on the alleged corrective disclosures, Dr. Nye concedes that he has not determined whether his proposed approach could actually be used to appropriately measure inflation considering the specific allegations and facts in this case.<sup>149</sup>

80. Even assuming market efficiency, Dr. Nye's proposed approach of carrying back Company-specific price declines on the alleged corrective disclosure dates relies on the premise that the stock price reaction on each alleged corrective disclosure date approximates the stock price reaction that would have occurred if the purported truth was revealed on an earlier but-for disclosure date. In order for this basic premise to hold, the Company must first have been able to disclose the information contained in the alleged corrective disclosure at the time of the alleged but-for disclosure. Second, the context of the economic circumstances faced by the Company at the time of the alleged corrective disclosure must also be comparable to the circumstances at the time of the alleged but-for disclosure. Finally, it must be possible to disaggregate the price impact of confounding information unrelated to the alleged fraud, from the impact of a given alleged corrective disclosure. As discussed below, Dr. Nye has not shown that any of these

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<sup>147</sup> Nye Deposition, p. 126:4–15.

<sup>148</sup> Nye Deposition, p. 126:9–22; Nye Deposition, p. 123:19–21 ("I don't have an opinion on the price inflation band at all really at this point."); Nye Deposition, p. 126:4–15 ("Q. How would you utilize the, quote, change in a security's price, closed quote, to measure inflation through the class period if you were to do such a study? A. ... The first step is analyzing the price change on the corrective event dates. In many instances, it's carried back constant, because ... there's good reasons to do so.").

<sup>149</sup> Nye Deposition, p. 126:16–19 ("Q. Do you know whether in this particular instance, for this case, it would be appropriate to use a constant inflation band? A. No. I haven't performed a rigorous or thorough analysis of ... price inflation...").

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conditions, which must be met in order to apply his proposed event study approach, are satisfied given the unique facts and allegations at issue in this matter.

81. Dr. Nye further claims that the same approach for measuring damages for the U.S. purchaser class can also be applied for measuring damages for the TASE purchaser class.<sup>150</sup> However, Dr. Nye appears to base this claim on an assumption provided to him by counsel, and he does not appear to perform any economic analysis to support his conclusion other than to state that the price responses are “similar” between the U.S. and TASE markets.<sup>151</sup> In fact, as discussed in **Section V.D.**, the event study model he performs for the TASE market yields Company-specific returns that differ from Company-specific returns of the U.S. market on several days during the Class Period. Nevertheless, since Dr. Nye fails to demonstrate that his proposed damages approach can be applied in a manner consistent with Plaintiffs’ theory of liability for the U.S. purchaser class, he also fails to demonstrate it can be applied for the TASE purchaser class.

**C. Dr. Nye has not established that the price reactions to information released on the alleged corrective disclosure dates can be used to measure alleged stock price inflation on earlier dates during the Class Period**

82. Dr. Nye’s proposed event study approach is predicated on the assumption that the stock price reaction on the alleged corrective disclosure dates reasonably approximates the value of the information that could have and should have been disclosed at earlier dates during the Class Period. However, Dr. Nye fails to consider that it may not have been possible for Perrigo to disclose the allegation-related information on earlier dates during the Class Period. In addition, even if the same information could have been disclosed at an earlier date, Dr. Nye has not established that the economic environment in which those but-for disclosures would have been made is comparable to the economic environment in which the alleged corrective disclosures were made. Dr. Nye has not articulated how his damages approach would be capable of measuring the value of the alleged inflation throughout the Class Period if disclosure of the

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<sup>150</sup> Nye Deposition, p. 134:2–21.

<sup>151</sup> Nye Deposition, p. 135:11–13.

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allegation-related information earlier in the Class Period would not be expected to have the same stock price reaction as on the alleged corrective disclosure date.

83. For example, Plaintiffs allege that a corrective disclosure occurred on May 12, 2016 when Perrigo “largely attributed [its Q1 2016] loss to an additional \$467 million impairment charge relating to the Omega acquisition.”<sup>152</sup> In effect, Dr. Nye’s proposed approach assumes that Perrigo could have disclosed this specific outcome associated with the Omega acquisition with perfect foresight at the beginning of the Class Period on April 21, 2015, less than one month after Perrigo acquired Omega.<sup>153</sup> If instead, Perrigo could have only made additional disclosures about the *risk* of uncertain write-downs in connection with the Omega acquisition on May 12, 2016, then the observed firm-specific price decline on the alleged corrective disclosure date will not reflect the value of alleged inflation in the stock price on earlier dates during the Class Period. The reason is that a price decline when a risk materializes reflects the fact that a *risk* became a *certainty*. In other words, the price decline on a realization of a risk reflects the market’s incorporation of an outcome that could not have been disclosed with certainty when a misrepresentation was allegedly made. To the extent that Plaintiffs allege that this or any other alleged corrective disclosure reflects a materialization of concealed risks, Dr. Nye has failed to articulate how his proposed damages approach can be used to measure inflation throughout the Class Period.<sup>154</sup>

**D. Dr. Nye fails to articulate how it would be possible to account for changes in the value of inflation during the portion of the Class Period when Mylan’s offer was pending**

84. Dr. Nye’s proposed approach of carrying back Company-specific price declines on the alleged corrective disclosure dates is particularly problematic for measuring alleged inflation during the portion of the Class Period when Mylan’s intention to acquire for Perrigo was pending (from the first day of the Class Period on April 21, 2015 until Mylan’s tender offer failed on

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<sup>152</sup> Complaint, ¶234.

<sup>153</sup> Complaint, ¶53.

<sup>154</sup> In his deposition testimony, Dr. Nye indicated that he has not considered whether an analysis of alleged concealed risks would be required in this case. *See* Nye Deposition, p. 132:3–6 (“Q. ... you can’t be sure of whether these plaintiffs are seeking to allege a materialization of concealed risk? A. No, I don’t have an opinion on that”).



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November 13, 2015).<sup>155</sup> From a financial economics perspective, the pricing of stocks subject to an outstanding takeover offer is fundamentally different from the pricing of stocks based on the standalone prospects of the company. In general, when there is uncertainty around a pending takeover offer, the stock price of the target company will reflect a weighted average between the offer price and the company's standalone value, where the weights reflect investors' perceived probabilities that the pending offer will be successful or unsuccessful, respectively.<sup>156</sup> In such a scenario, changes in the target company's stock price will reflect changes in investors' perceived likelihood that the takeover will be completed at the expected offer price, as well as changes in the standalone value of the company.<sup>157</sup> In addition to the considerations discussed above, by also failing to consider these pricing dynamics due to the pending tender offer during this period, Dr. Nye further fails to articulate how it would be possible to account for changes in the value of inflation that could have resulted from investors' evolving expectations about the Mylan offer.

85. In the context of this case, while Mylan's offer was pending, investors' evolving expectations about receiving the cash and stock consideration offered by Mylan would have driven changes in Perrigo's share price. In fact, in Dr. Nye's deposition testimony, he agreed that "the probability of the tender [offer] going through [was] embedded in the price" of Perrigo

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<sup>155</sup> Mylan Press Release, "Mylan Proposes To Acquire Perrigo For \$205 Per Share," dated April 8, 2015, available at <http://newsroom.mylan.com/2015-04-08-Mylan-Proposes-To-Acquire-Perrigo-For-205-Per-Share>, accessed on March 22, 2019; Perrigo Press Release, "Perrigo Shareholders Convincingly Reject Mylan's Tender Offer, Expressing Confidence in Perrigo's Long-Term Strategy," dated November 13, 2015, available at <https://investor.perrigo.com/2015-11-13-Perrigo-Sharesholders-Convincingly-Reject-Mylans-Tender-Offer-Expressing-Confidence-in-Perrigos-Long-Term-Strategy>, accessed on March 14, 2019.

<sup>156</sup> In a pending merger setting, the stock price of the target company will approximate a weighted average of the standalone value of the company and the offer price. *See, e.g.*, Brown, Keith, and Michael Raymond, "Risk Arbitrage and the Prediction of Successful Corporate Takeovers," *Financial Management* (1986): 54–63. Consistent with this framework, Asquith (1983) finds that stock prices of target companies respond to the perceived merger probability until the outcome of the merger is resolved. *See* Asquith, Paul, "Merger Bids, Uncertainty, and Stockholder Returns," *Journal of Financial Economics* 11 (1983): 51–83.

<sup>157</sup> Evidence from academic literature suggests that a decrease in the perceived likelihood of a merger closing will reduce the target company's stock price closer to its standalone value, while an increase in the perceived likelihood of a merger closing will increase the stock price closer to the expected offer price. For example, Samuelson and Rosenthal (1986) find that an increase (decrease) in the target company stock price predict greater (lesser) "market odds" that the merger offer will be successful. *See* Samuelson, William, and Leonard Rosenthal, "Price Movements as Indicators of Tender Offer Success," *Journal of Finance* 41, no. 2 (1986): 481–499.

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shares during the period when the Mylan offer was pending.<sup>158</sup> As a result, changes in Perrigo's stock price due to investors' expectations about Mylan's pending offer would have confounded changes in Perrigo's stock price due to information about Perrigo's standalone value. Since the alleged misrepresentations pertain to Perrigo's standalone value, the value of the alleged inflation in Perrigo's stock price attributable to the alleged misrepresentations could have been affected by investors' expectations about Mylan's offer during the portion of the Class Period when Mylan's offer for Perrigo was pending.

86. Dr. Nye has not proposed a methodology that is capable of disentangling price movements in Perrigo's shares attributable to changes in investors' expectations about Mylan's pending offer from price movements attributable to news about Perrigo's standalone value and the alleged misrepresentations. In fact, it would likely be very difficult to measure changes in the value of the alleged inflation during the portion of the Class Period that the Mylan offer was pending because it would require information that cannot be observed directly from market prices. For example, an appropriate methodology would likely require some measurement of how investors' perceived likelihood of Mylan's offer succeeding changed over time. Without a proposed methodology that can account for changes in investors' expectations with respect to Mylan's offer while it was pending, Dr. Nye's proposed damages approach cannot be used to measure changes in the alleged inflation over this portion of the Class Period.

**E. Dr. Nye fails to articulate how his event study approach will be able to disaggregate the price impact of confounding information released simultaneously with the alleged corrective disclosures**

87. Dr. Nye has not determined how it will be possible to disaggregate the price impact of confounding information unrelated to the alleged misrepresentations released at the same time as the alleged corrective disclosures in this case. In his report, Dr. Nye simply claims "[a]n event study can be used to isolate Company-specific price movement caused by the revelation of true

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<sup>158</sup> Nye Deposition, pp. 147:21–148:10 (“Q. And is there a reason why you rejected using the price of Perrigo shares before the tender offer was known to have failed? A. Well, sure. It’s a -- baking in the -- it’s not Perrigo stand-alone. It’s Perrigo with Mylan. Right? It’s got a -- the probability of the tender going through is embedded in the price. And it’s only once that it fails, which is approximately 8:00 in the morning, I believe, that it was reported that the tender didn’t go through, that Perrigo’s now to not trade with any influence from the Mylan assets, you know, being held in tandem.”).

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facts related to the alleged fraud from price movement caused by other factors,” where these “other factors” include “the dissemination of *material, non-fraud-related*, Company-specific information.”<sup>159</sup> However, the event study model Dr. Nye presents in his report for analyzing market efficiency only measures an overall Company-specific return. Dr. Nye does not articulate how this event study approach could be extended for measuring damages, which would require further disaggregating this Company-specific return due to allegation-related and confounding information. Dr. Nye offers only the vague suggestion that “[s]ometimes ... you got to go a little farther to refine it towards how much of that decline ... was due to the fraud, as opposed to other non-fraud-related, company-specific information.”<sup>160</sup> Since Dr. Nye has not articulated a specific methodology that can disaggregate the price impact of Company-specific confounding information on the alleged corrective disclosures, he has not established that his proposed event study approach is capable of measuring damages consistent with Plaintiffs’ theory of liability in this case.

88. In addition to his proposed event study approach, Dr. Nye also suggested in his deposition testimony that it may be possible to use “models of how a firm that’s of a certain type might have ... react[ed] to an earnings surprise or a revenue surprise” in order to disaggregate confounding information.<sup>161</sup> However, Dr. Nye fails to articulate how such an approach could be used to disaggregate any of the specific confounding information released on the alleged corrective disclosure dates in this case. In fact, the price response due to confounding information released on several of the alleged corrective disclosures cannot be disaggregated as Dr. Nye proposes because the confounding information does not relate to “an earnings surprise or a revenue surprise.”<sup>162</sup> Indeed, depending on the nature of the confounding information that must be disaggregated, Dr. Nye admits that he has “encountered situations where it’s very

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<sup>159</sup> Nye Report, ¶63 (emphasis added).

<sup>160</sup> In his deposition testimony, Dr. Nye did not clarify how he proposes to separate Company-specific changes in price, other than noting that “[s]ometimes ... you got to go a little farther to refine it towards how much of that decline net of market and industry effects was due to the fraud, as opposed to other non-fraud-related, company-specific information.” See Nye Deposition, p. 125:12–16; Nye Deposition, p. 136:8–12 (“Q. ... Did your event study that you presented with your report control for the dissemination of material, non-fraud-related, company-specific information? A. No.”).

<sup>161</sup> Nye Deposition, p. 130:18–23.

<sup>162</sup> Nye Deposition, p. 130:18–23.

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difficult to isolate components to a [price] drop.”<sup>163</sup> Dr. Nye has therefore not addressed whether or how it would be possible to disaggregate price responses on the alleged corrective disclosures attributable to information unrelated to the actionable alleged misrepresentations in this case.

89. For example, on April 25, 2016, Plaintiffs allege that “the Company attributed ... poor financial results to increased competitive pressures in its prescription drug segment and weaker-than-expected performance within Omega,” and that “Omega impairment charges might grow even larger than the \$185 million charge [the Company] had announced two months earlier.”<sup>164</sup>

In the same press release, however, Perrigo also announced other information that I understand is not allegedly corrective of the alleged misrepresentations, including (i) the departure and resignation of Joseph Papa and the appointment of a new Chief Executive Officer, John T. Hendrickson; and (ii) a more than 10% decrease in earnings guidance.<sup>165</sup> In his deposition testimony, Dr. Nye was not able to point to any methodologies in peer-reviewed academic literature that would be able to disaggregate the price impact of this confounding information.<sup>166</sup> Dr. Nye therefore has not established that there is a reliable methodology that can be used to disaggregate the price responses caused by specific allegation-related information from the confounding information released at the same time on this date or the other alleged corrective disclosure dates.

90. As a further example, with respect to the alleged corrective disclosures about the Omega acquisition, Dr. Nye does not specify how his event study approach will be able to disaggregate confounding price impacts attributable to the realization of *previously disclosed* risks on the alleged corrective disclosure dates. In other words, Dr. Nye’s proposed damage approach does not provide a way to measure the portion of the price decline on the alleged corrective disclosure dates attributable to the realization of risks that purchasers of Perrigo shares could have considered previously based on prior disclosures. For example, on August 13, 2015,

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<sup>163</sup> Nye Deposition, p. 137:7–12.

<sup>164</sup> Complaint, ¶230.

<sup>165</sup> Complaint, ¶11; Perrigo Press Release, “Perrigo Appoints John T. Hendrickson as Chief Executive Officer, Provides Preliminary First Quarter 2016 Selected Financial Results, and Updates Full Year 2016 Guidance,” dated April 25, 2016, available at <https://investor.perrigo.com/2016-04-25-Perrigo-Appoints-John-T-Hendrickson-as-Chief-Executive-Officer-Provides-Preliminary-First-Quarter-2016-Selected-Financial-Results-and-Updates-Full-Year-2016-Guidance>, accessed on March 14, 2019.

<sup>166</sup> Nye Deposition, pp. 139:10–142:5.

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approximately six months before the first alleged corrective disclosure on February 18, 2016, Perrigo stated in its annual report to stockholders that:

- a) “The Omega acquisition represents a major shift in our business”;
- b) “These changes [due to the Omega acquisition] may present challenges and risks related to, among other things, our attempt to create synergies with Omega”;
- c) “There is no assurance that we will be able to successfully integrate Omega or otherwise realize the expected benefits of the Omega acquisition.”<sup>167</sup>

Following this disclosure, changes in the price of Perrigo’s shares in response to subsequent disclosures of outcomes related to the Omega acquisition could in part reflect a realization of these previously disclosed risks. Since Dr. Nye has not provided a methodology that can disaggregate the price impact attributable to the realization of these or other previously disclosed risks on the alleged corrective disclosure dates, he has not provided a methodology that can measure damages arising only from the alleged misrepresentations in this case.

**F. Dr. Nye’s proposed damages approach fails to distinguish among multiple categories of alleged misrepresentations**

91. As discussed above, following the Court’s MTD Order, I understand that two categories of allegations remain actionable in this case, regarding (i) the “present success” of the integration of the Omega acquisition, and (ii) the alleged collusive pricing in Perrigo’s generic prescription drugs division.<sup>168</sup> An appropriate damages methodology would need to address the varying amount of alleged inflation in the price of Perrigo’s shares caused by each of these alleged misrepresentations throughout the Class Period. However, Dr. Nye has stated in his deposition testimony that he has not considered any methodology to identify or disaggregate information due to any of the individual alleged misrepresentations.<sup>169</sup> Specifically, under Dr. Nye’s proposed event study approach, he has not provided any methodology to disaggregate the price response on the April 25, 2016 and August 10, 2016 alleged corrective disclosures, for which

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<sup>167</sup> Perrigo Form 10-K, dated August 13, 2015, p. 23.

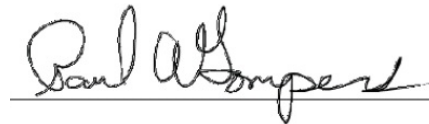
<sup>168</sup> Complaint, ¶1; MTD Order.

<sup>169</sup> Nye Deposition, pp. 138:15–139:3 (“Q. With respect to the analysis you performed for this case, have you done any analysis to ... separate out damages caused by an individual, alleged misstatements or omissions on each date? ... A. No ... I haven’t analyzed the impacts of misstatements or isolated specific fraud-related components to a corrective event.”).

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Plaintiffs allege that corrective information related to both categories of actionable allegations was disclosed.<sup>170</sup> As a result, if at a later date a trier of fact were to find that there is no liability associated with specific alleged misrepresentations, Dr. Nye has not explained how his proposed methodology will be able to disaggregate the portion of the price decline on the alleged corrective disclosure dates attributable only to the remaining actionable alleged misrepresentations. In this event, Dr. Nye has not articulated how his proposed event study approach can be used to measure damages consistent with Plaintiffs' theory of liability.

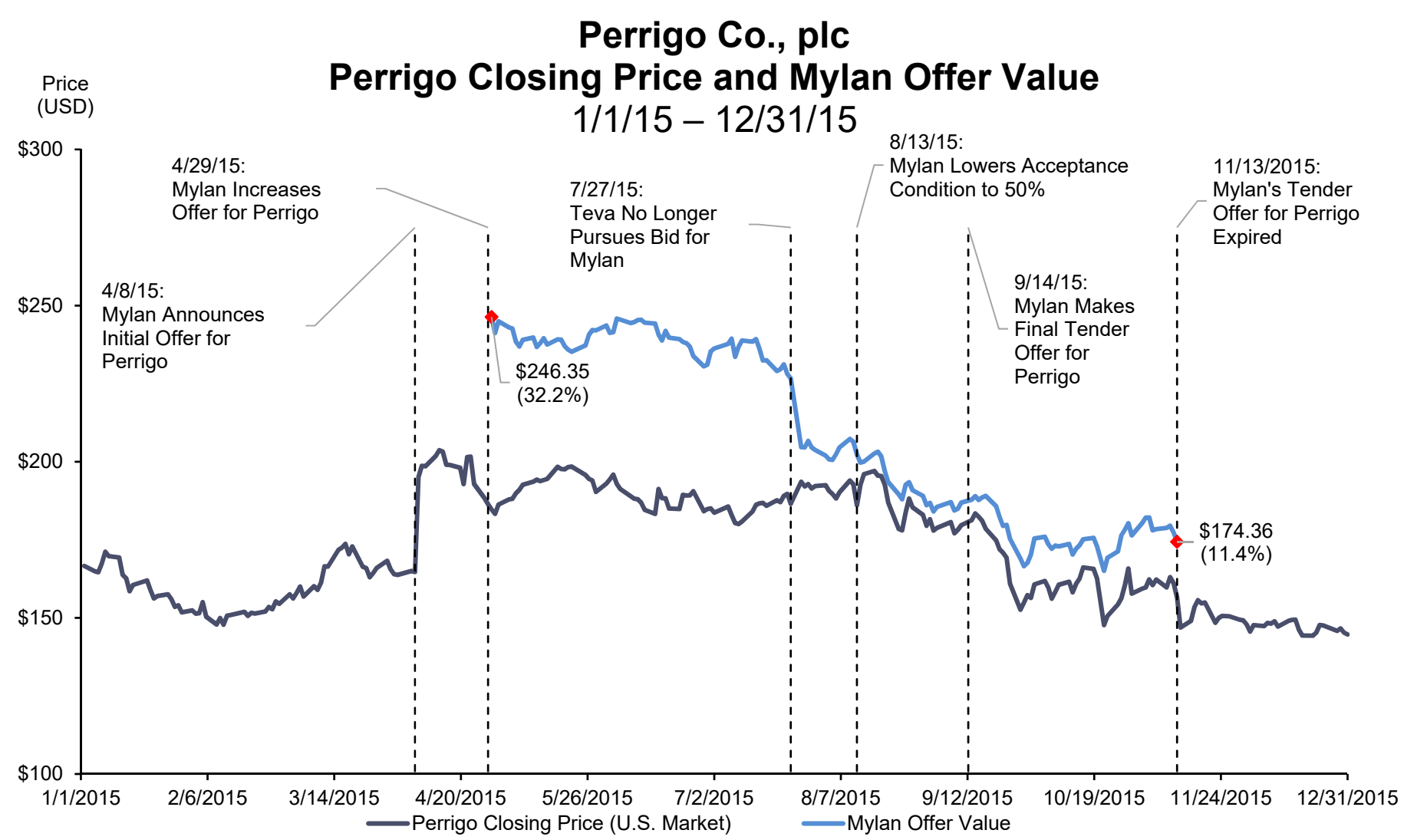
Executed this 17<sup>th</sup> of April, 2019

A handwritten signature in black ink, reading "Paul A. Gompers", is written over a horizontal line.

Paul A. Gompers, Ph.D.

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<sup>170</sup> Complaint, ¶¶229–233, 237–238.



Source: Refinitiv; Press Releases by Mylan, Teva, and Perrigo

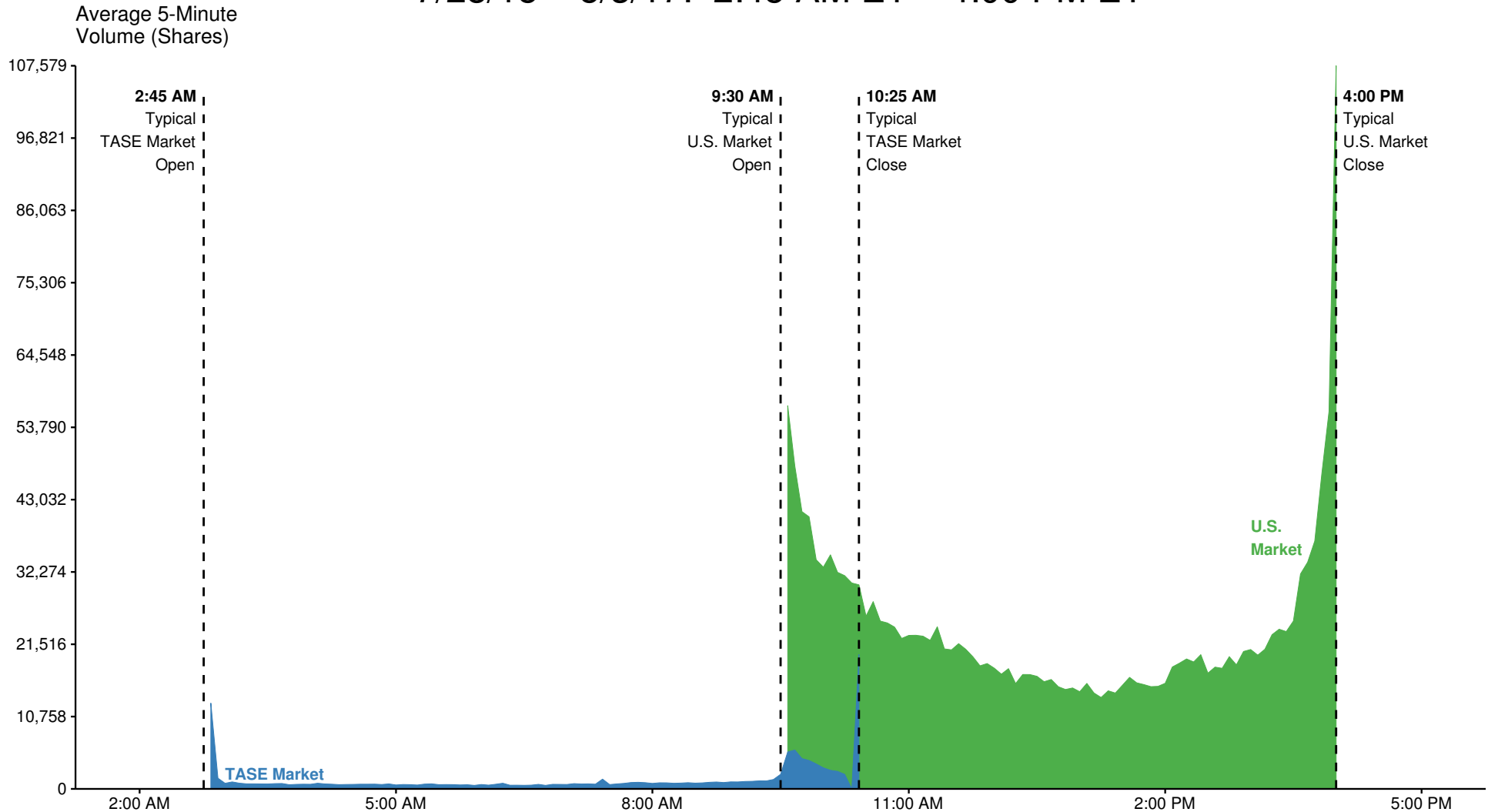
Note: The Mylan Offer Value is based on Mylan's offer for  $\$75 + 2.3 \times$  Mylan shares per Perrigo share and is calculated using the Mylan closing price on each day. Percentages shown represent Mylan's implied offer premium over Perrigo's closing price on the prior trading day.



## Perrigo Co., plc

### Intraday Average Trading Volume on the TASE Market and the U.S. Market

7/28/15 – 5/3/17: 2:45 AM ET – 4:00 PM ET



Source: Public Information on the TASE Market Trading Schedule; Tick Data Trades

**Note:**

All times presented in Eastern Time. The U.S. market hours and the TASE market hours are typically as shown, with exceptions for dates impacted by daylight savings or holidays. Volume is measured as the total trading volume for 5-minute intervals each day, averaged across the 314 days in the Class Period that fit the following criteria: both the TASE market and the U.S. market are open, both TASE market and U.S. market data are available, and the time difference between the TASE market and the U.S. market is seven hours. TASE volume data are available 7/28/15 – 5/3/17.

# Perrigo Co., plc

## Geographic Distribution of Equity Analysts

### 4/21/15 – 5/3/17<sup>[1]</sup>

Contributor <sup>[2]</sup>	Number of Reports Issued			Total <sup>[3]</sup>
	2015	2016	2017	
United States	160	258	89	507
Israel	2	3	2	7
<b>Total</b>	<b>162</b>	<b>261</b>	<b>91</b>	<b>514</b>

Source: Expert Report of Zachary Nye, Ph.D. Backup; S&P CapitalIQ; Thomson Reuters

Note:

[1] Analyst reports issued within the Class Period are considered.

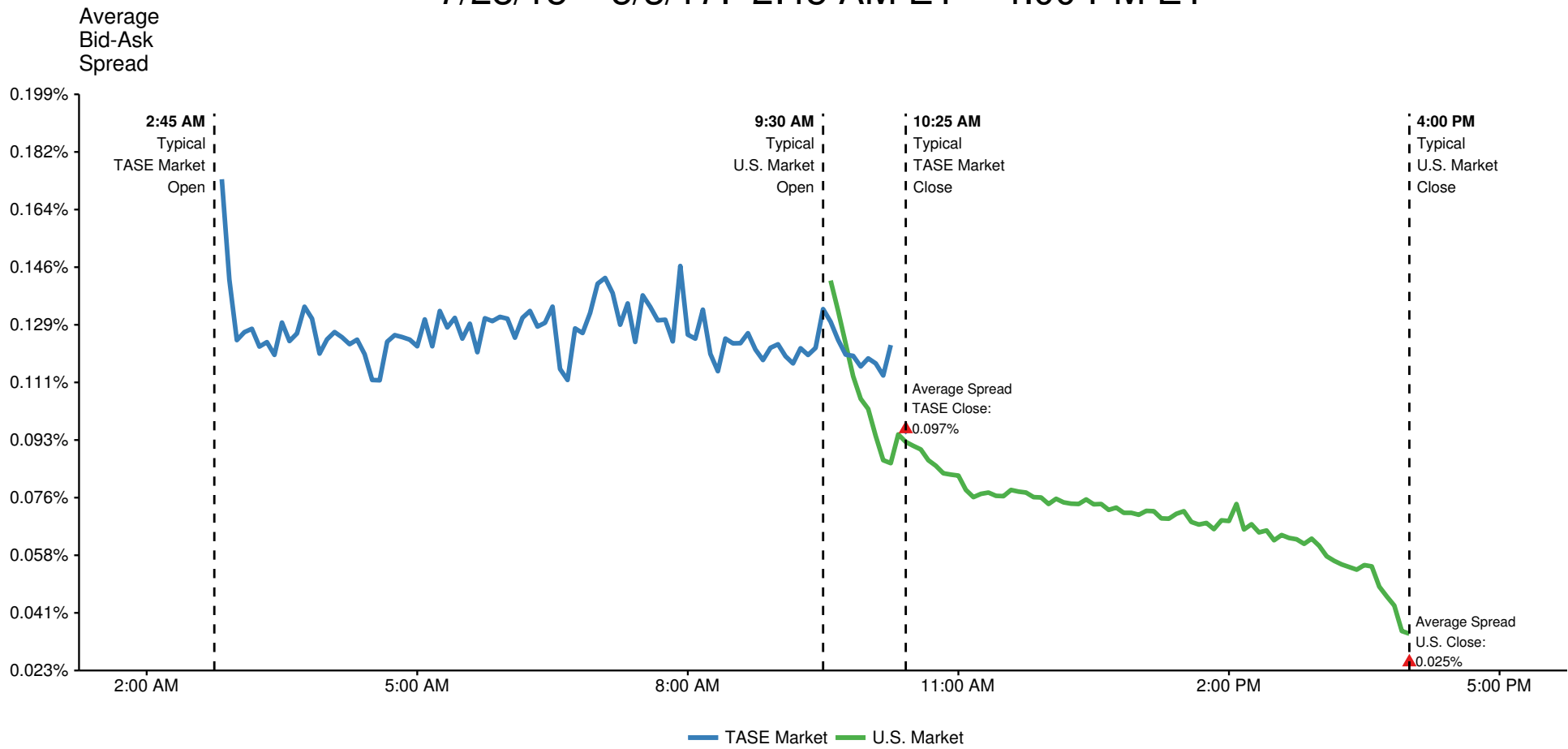
[2] There are 26 unique contributors who distribute reports from the United States. There are three unique contributors who distribute reports from Israel: Auerbach Grayson; Israel Brokerage & Investments I.B.I. Ltd.; and Bank of Jerusalem.

[3] Analyst reports were considered based on availability from public sources (Thomson Reuters and S&P CapitalIQ), Dr. Nye's backup, and counsel, as well as the report type typical of a given contributor. 56 analyst reports were considered that Dr. Nye does not consider. In addition, 225 analyst reports were not considered from Dr. Nye's report, which typically contain technical analysis and no analyst commentary.

# Perrigo Co., plc

## Intraday Average Bid-Ask Spread on the TASE Market and the U.S. Market

7/28/15 – 5/3/17: 2:45 AM ET – 4:00 PM ET



Source: Public Information on the TASE Market Trading Schedule; Refinitiv; Tick Data Level 1 Quotes; Tick Data NBBO Quotes

### Note:

All times presented in Eastern Time. The U.S. market hours and the TASE market hours are typically as shown, with exceptions for dates impacted by daylight savings or holidays. Quotes are considered where the ask price is larger than the bid price and the bid price and ask price are larger than 50 ILS for the TASE quotes or \$5 for the U.S. quotes. Additionally, quotes are excluded when the spread is above the 99th percentile of values for Perrigo ("PRGO") for a given exchange. The 99th percentile is 0.268% for the U.S. market and 0.432% for the TASE market. All intraday TASE prices are converted from ILS to USD using the nearest available intraday foreign exchange ("FX") rate. Bid-ask spreads are calculated as the ask price minus the bid price divided by the average of the two and represent the averages during 5-minute intervals across the 314 days in the Class Period that fit the following criteria: both the TASE market and the U.S. market are open, both TASE market and U.S. market data are available, and the time difference between the TASE market and the U.S. market is seven hours. TASE quote prices are available 7/28/15 – 5/3/17. The Average Spread at Close represents the average of the final bid-ask spread on each day across the 314 days considered.

# Perrigo Co., plc Number of Trading Days Covered in Dr. Nye's Event Study for the U.S. Market and the TASE Market

	U.S. Market	TASE Market	Difference
Trading Days During the Class Period	514	497	17
Trading Days with Company-Specific Return Available from Dr. Nye's Event Study	514	390	124
Trading Days with Any Statistically Significant Company-Specific Returns at 95% Confidence Level <sup>[1]</sup>	32	17	15
Trading Days with Positive and Statistically Significant Company-Specific Returns <sup>[2]</sup>	8	4	4
Trading Days with Negative and Statistically Significant Company-Specific Returns <sup>[3]</sup>	24	13	11

Source: Expert Report of Zachary Nye, Ph.D. Exhibit 11

Note:

[1] Number of trading days across the full set of trading days with an available company-specific return. When considering days common to the U.S. market and the TASE market models, the U.S. market has 22 trading days with any statistically significant company-specific return at the 95% confidence level.

[2] Number of trading days across the full set of trading days with an available company-specific return. When considering days common to the U.S. market and the TASE market models, the U.S. market has seven trading days with a positive and statistically significant company-specific return at the 95% confidence level.

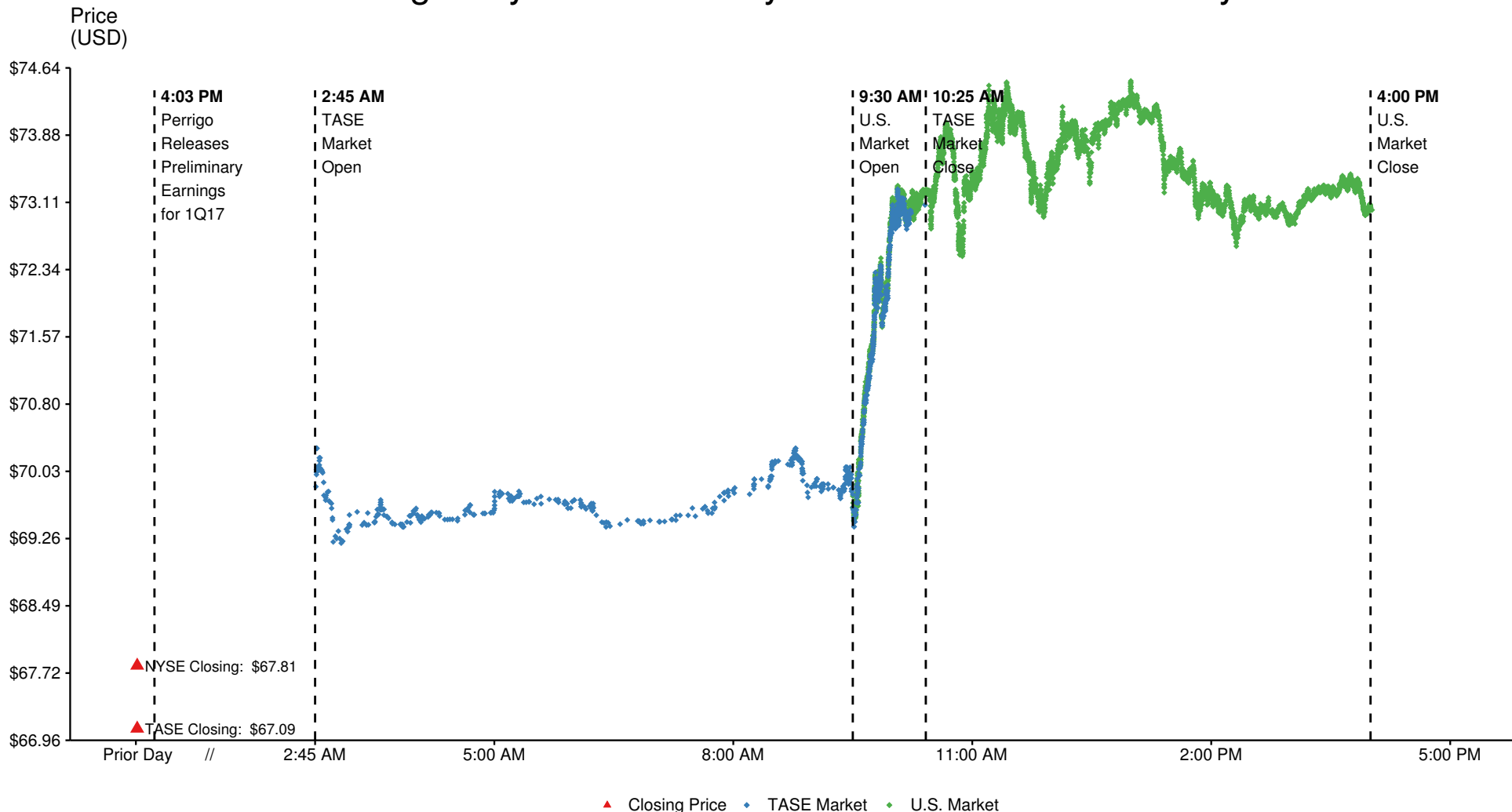
[3] Number of trading days across the full set of trading days with an available abnormal return. When considering days common to the U.S. market and the TASE market models, the U.S. market has 15 trading days with a negative and statistically significant company-specific return at the 95% confidence level.

Perrigo Co., plc

Intraday Transaction Prices on the TASE Market and the U.S. Market

4/26/17 (Wednesday): 2:45 AM ET – 4:00 PM ET

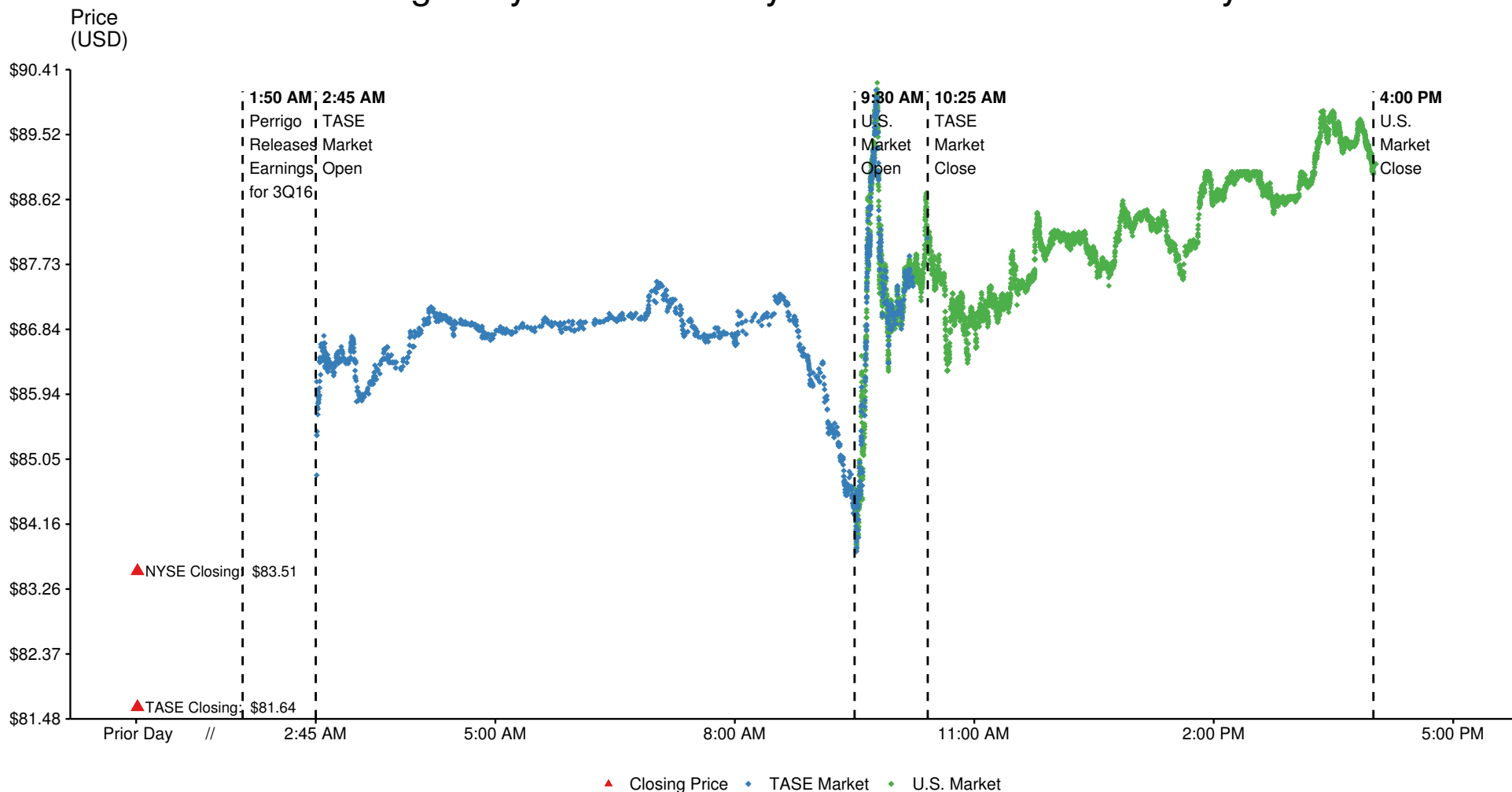
Earnings Day Used in Dr. Nye's Cammer Factor 5 Analysis



Source: Expert Report of Dr. Nye, filed November 30, 2018; Perrigo Press Release; Refinitiv; Tick Data Trades

Note:  
Perrigo issued a press release with preliminary 1Q17 financial results and other announcements on 4/25/17 at 4:03 PM ET. All times presented in Eastern Time. Perrigo prices have been volume-weighted by second. All intraday TASE prices are converted from ILS to USD using the nearest intraday foreign exchange ("FX") rate.

**Perrigo Co., plc**  
**Intraday Transaction Prices on the TASE Market and the U.S. Market**  
11/10/16 (Thursday): 2:45 AM ET – 4:00 PM ET  
Earnings Day Used in Dr. Nye's Cammer Factor 5 Analysis



Source: Expert Report of Dr. Nye, filed November 30, 2018; Perrigo Press Release; Refinitiv; Tick Data Trades

Note:

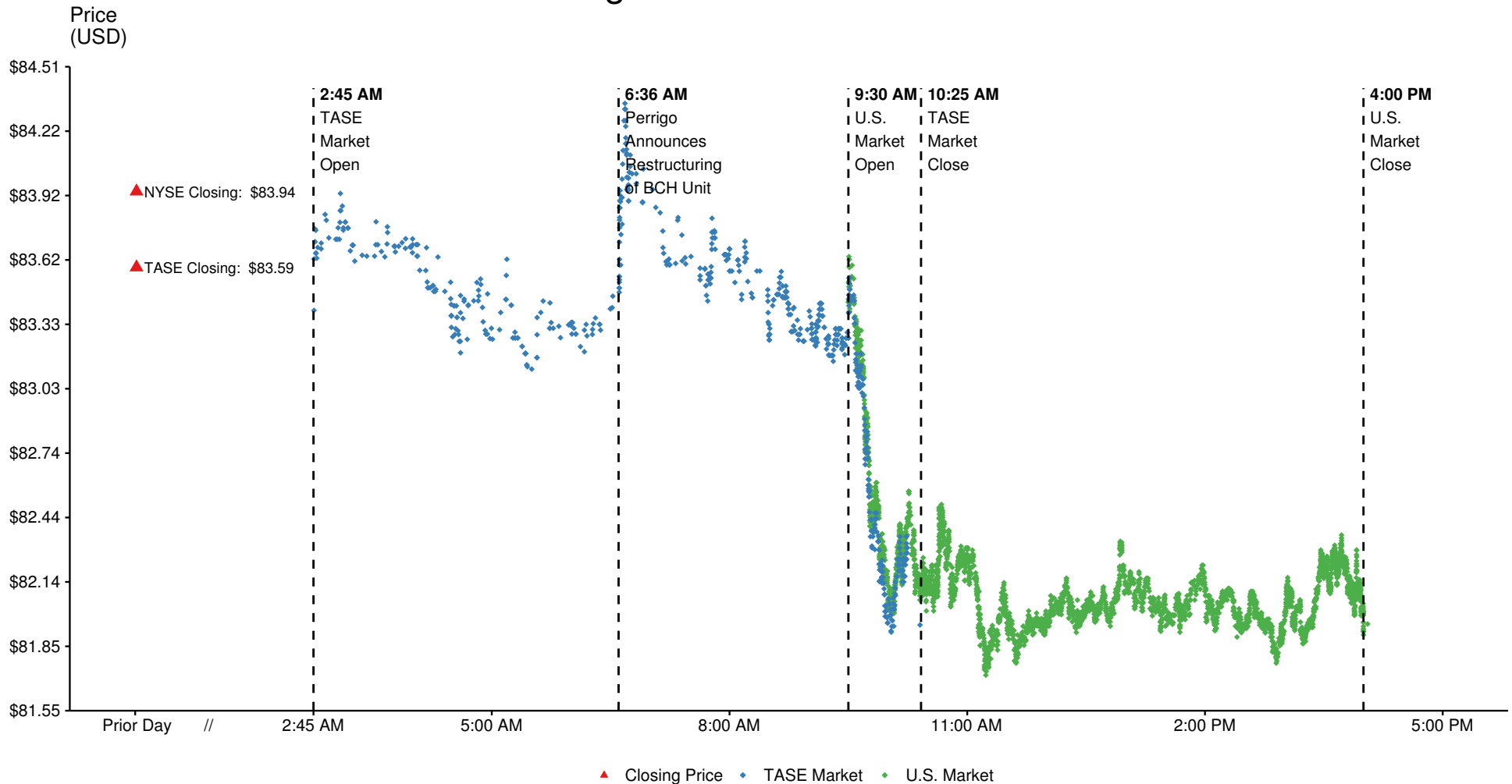
Perrigo issued a press release with 3Q16 earnings and announced that it had taken impairment charges with respect to the BCH Omega unit at 1:50 AM ET. All times presented in Eastern Time. Perrigo prices have been volume-weighted by second. All intraday TASE prices are converted from ILS to USD using the nearest intraday foreign exchange ("FX") rate.

# Perrigo Co., plc

## Intraday Transaction Prices on the TASE Market and the U.S. Market

12/8/16 (Thursday): 2:45 AM ET – 4:00 PM ET

### Alleged Corrective Disclosure



Source: Complaint; Perrigo Press Release; Refinitiv; Tick Data Trades

**Note:**

Alleged Corrective Disclosure at 6:36 AM ET: "Shares dropped another 2.37% to close at \$81.94 on December 8, 2016, after Perrigo announced that it had to entirely restructure the BCH (Omega) unit" (Complaint, ¶ 238). All times presented in Eastern Time. Perrigo prices have been volume-weighted by second. All intraday TASE prices are converted from ILS to USD using the nearest intraday foreign exchange ("FX") rate.

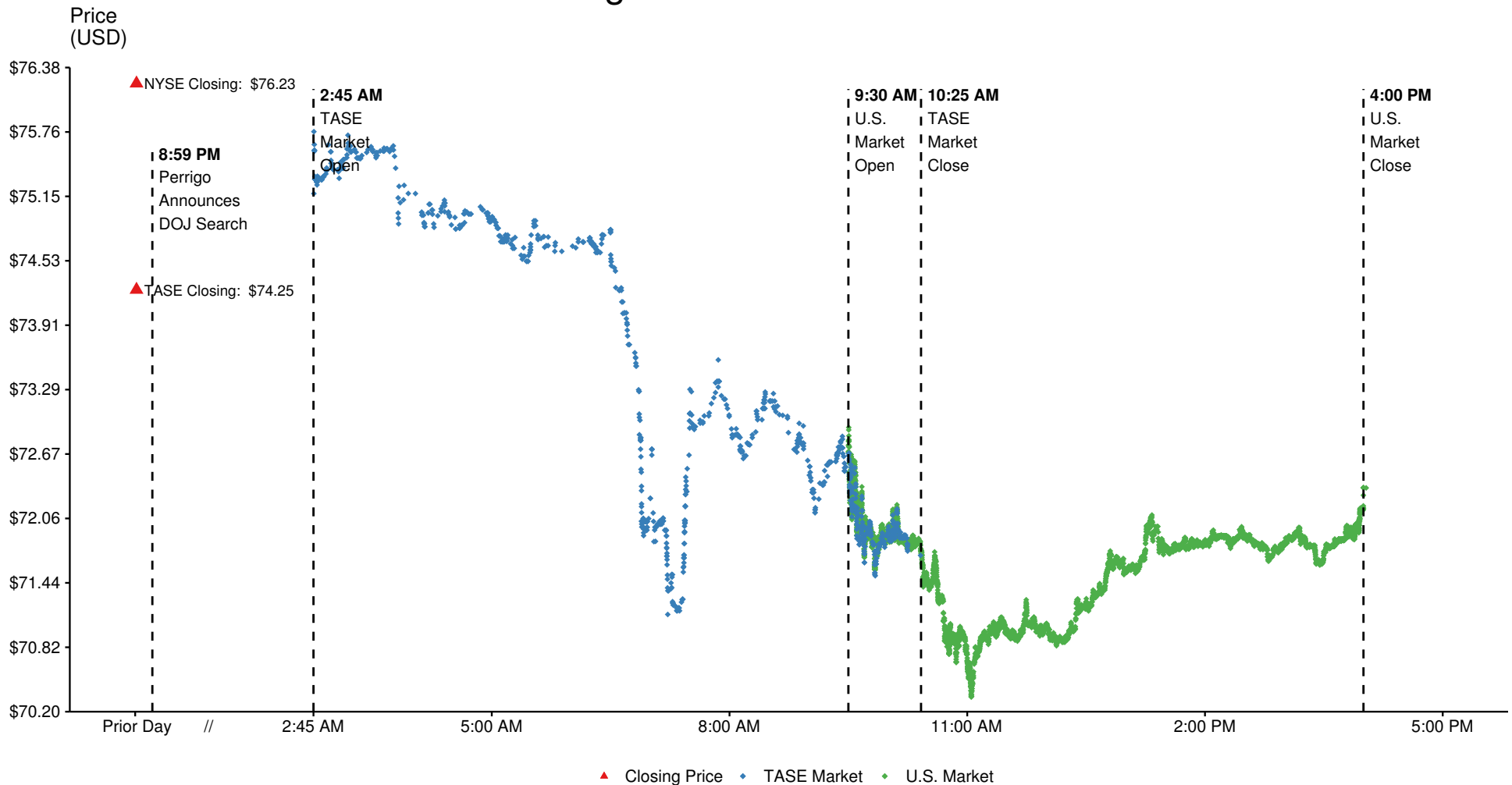


# Perrigo Co., plc

## Intraday Transaction Prices on the TASE Market and the U.S. Market

5/3/17 (Wednesday): 2:45 AM ET – 4:00 PM ET

### Alleged Corrective Disclosure



Source: Complaint; Perrigo Press Release; Refinitiv; Tick Data Trades

**Note:**

Alleged Corrective Disclosure on 5/2/17 at 8:59 PM ET: "Perrigo revealed that its offices had been raided as part of an ongoing investigation by the United States Department of Justice into price-fixing in the pharmaceutical industry" (Complaint, ¶ 243). All times presented in Eastern Time. Perrigo prices have been volume-weighted by second. All intraday TASE prices are converted from ILS to USD using the nearest intraday foreign exchange ("FX") rate.

**Perrigo Co., plc**  
**Daily Synchronous Returns When Both**  
**the U.S. Market and the TASE Market Were Open<sup>[1][2]</sup>**  
**7/28/15 – 5/3/17<sup>[3]</sup>**

Summary Statistic	Absolute Difference in Daily Synchronous Returns (basis points) <sup>[4]</sup>
Average	20.1
5th Percentile	1.0
25th Percentile	6.5
50th Percentile	14.1
75th Percentile	26.0
95th Percentile	61.9

Source: Public Information on the TASE Trading Schedule; Tick Data Level 1 Quotes; Tick Data NBBO Quotes

Note:

[1] Returns are based on quote midpoints, and intraday TASE transaction prices are converted to USD using the nearest intraday foreign exchange ("FX") rate. Quote midpoints are calculated as an average between the bid price and the ask price. Midpoints are averaged at the millisecond level, and the quote midpoints used are associated with the latest timestamp for a given time interval. Quotes are considered where the ask price is larger than the bid price, and the bid price and ask price are larger than 50 ILS for the TASE quotes, or \$5 for the U.S. market quotes.

[2] The synchronous period represents the return from the U.S. market open to the TASE market close and is typically from 9:30 AM ET to 10:25 AM ET, with exceptions for dates impacted by daylight savings or holidays. On dates in which the time difference is six hours, the returns are calculated from 9:30 AM ET to 11:25 AM ET; this occurs on 23 dates between July 28, 2015 and May 3, 2017. Daily synchronous returns are not calculated for the 11 dates on which the TASE market closes before the U.S. market opens, as there is no synchronous period on these dates.

[3] Summary statistics are across dates on which data are available for both markets. Tick Data for Perrigo on TASE is not available until 7/28/15.

[4] Differences are calculated as the absolute value of the return in the U.S. market minus the return on the TASE market measured in basis points.

# **Mylan N.V.** **Intraday Transaction Prices on the U.S. Market** **11/13/15 (Friday): 9:30 AM ET – 4:00 PM ET** **Mylan Tender Offer Expired**



Source: Perrigo Press Release; Refinitiv; Tick Data Trades

## **Note:**

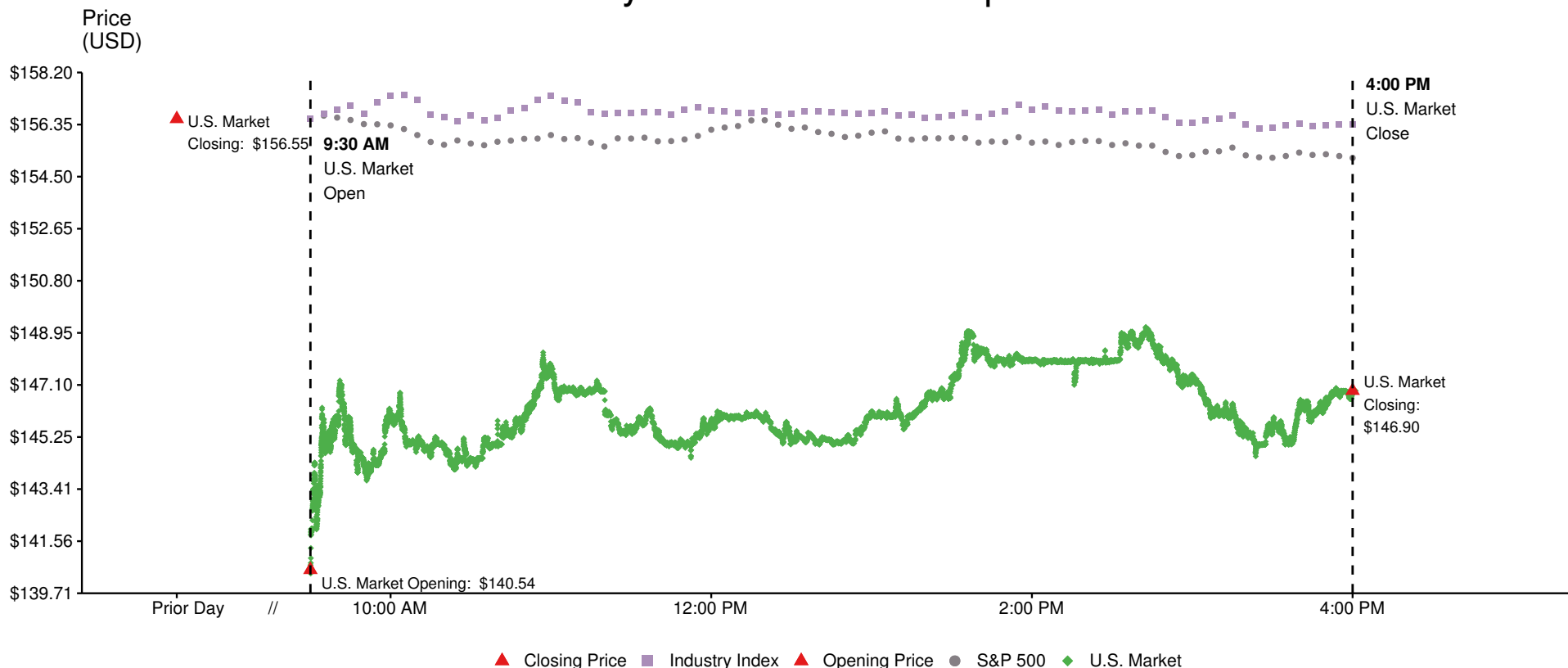
The Mylan ("MYL") tender offer expired at 8:00 AM ET on 11/13/15 with less than 40% of Perrigo ("PRGO") shares tendered. All times presented in Eastern Time. MYL prices have been volume-weighted by second. S&P 500 prices are calculated based on SPDR S&P 500 ETF Trust ("SPY") returns for 5-minute intervals and pegged to the closing price of MYL on 11/12/15. SPY returns are based on quote midpoints between the latest timestamps for 5-minute intervals, except for between 9:30 AM ET and 9:35 AM ET, where the first quote after 9:30 AM ET and the last quote prior to 9:35 AM ET are used. Industry index prices are calculated based on returns for 5-minute intervals and pegged to the closing price of MYL on 11/12/15. Industry index returns are constructed by taking the market capitalization weighted average return of a replicated S&P Pharmaceuticals Index, excluding Perrigo, Mylan prior to 11/13/15, and Endo Pharmaceuticals, based on the previous trading day market capitalization and quote midpoints between the latest timestamps for 5-minute intervals, except for between 9:30 AM ET and 9:35 AM ET, where the first quote after 9:30 AM ET and the last quote prior to 9:35 AM ET are used. Quote midpoints are calculated as an average between the bid price and the ask price and are averaged at the microsecond level. Quotes are only considered where the ask price is larger than the bid price and the bid price and ask price are larger than \$5.

# Perrigo Co., plc

## Intraday Transaction Prices on the U.S. Market

### 11/13/15 (Friday): 9:30 AM ET – 4:00 PM ET

### Mylan Tender Offer Expired



Source: Perrigo Press Release; Refinitiv; Tick Data Trades

#### Note:

The Mylan ("MYL") tender offer expired at 8:00 AM ET on 11/13/15 with less than 40% of Perrigo ("PRGO") shares tendered. All times presented in Eastern Time. PRGO prices have been volume-weighted by second. S&P 500 prices are calculated based on SPDR S&P 500 ETF Trust ("SPY") returns for 5-minute intervals and pegged to the closing price of PRGO on 11/12/15. SPY returns are based on quote midpoints between the latest timestamps for 5-minute intervals, except for between 9:30 AM ET and 9:35 AM ET, where the first quote after 9:30 AM ET and the last quote prior to 9:35 AM ET are used. Industry index prices are calculated based on returns for 5-minute intervals and pegged to the closing price of PRGO on 11/12/15. Industry index returns are constructed by taking the market capitalization weighted average return of a replicated S&P Pharmaceuticals Index, excluding Perrigo, Mylan prior to 11/13/15, and Endo Pharmaceuticals, based on the previous trading day market capitalization and quote midpoints between the latest timestamps for 5-minute intervals, except for between 9:30 AM ET and 9:35 AM ET, where the first quote after 9:30 AM ET and the last quote prior to 9:35 AM ET are used. Quote midpoints are calculated as an average between the bid price and the ask price and are averaged at the microsecond level. Quotes are only considered where the ask price is larger than the bid price and the bid price and ask price are larger than \$5.

## Returns on Combined Perrigo and Mylan Holdings for Perrigo's Top 25 Institutional Investors<sup>[1]</sup>

Dr. Nye's Assumed But-for Scenario Compared to Actual Returns on November 13, 2015

Investor Name <sup>[2]</sup>	Holdings Reported as of 9/30/15 <sup>[3]</sup> (in thousands)		Returns on Combined Perrigo and Mylan Holdings	
	Perrigo	Mylan	Dr. Nye's But-for Scenario <sup>[4]</sup>	Actual <sup>[5]</sup>
BlackRock Institutional Trust Company, N.A.	10,969	22,869	7.22%	-2.77%
The Vanguard Group, Inc.	9,024	23,315	6.64%	-1.73%
State Street Global Advisors (US)	5,679	16,406	6.33%	-1.17%
Wellington Management Company, LLP	3,575	46,943	2.46%	5.77%
Och-Ziff Capital Management Group LLC	3,526	0	11.38%	-10.23%
York Capital Management L P.	3,070	0	11.38%	-10.23%
Eton Park Capital Management, L.P.	2,987	0	11.38%	-10.23%
Paulson & Co. Inc.	2,939	21,913	3.72%	3.51%
Fidelity Management & Research Company	2,637	6,784	6.65%	-1.75%
Highfields Capital Management, L.P.	2,434	1,250	9.96%	-7.69%
Carmignac Gestion	2,219	5,449	6.78%	-1.98%
Parnassus Investments	2,058	0	11.38%	-10.23%
Pentwater Capital Management LP	2,010	960	10.05%	-7.85%
Visium Asset Management, LP	1,804	265	10.93%	-9.43%
BlackRock Financial Management, Inc.	1,562	7,525	4.88%	1.42%
D. E. Shaw & Co., L.P.	1,483	1,192	9.31%	-6.52%
Ruane, Cunniff & Goldfarb, Inc.	1,470	0	11.38%	-10.23%
Geode Capital Management, L.L.C.	1,178	3,309	6.41%	-1.31%

## Returns on Combined Perrigo and Mylan Holdings for Perrigo's Top 25 Institutional Investors<sup>[1]</sup>

Dr. Nye's Assumed But-for Scenario Compared to Actual Returns on November 13, 2015

Investor Name <sup>[2]</sup>	Holdings Reported as of 9/30/15 <sup>[3]</sup> (in thousands)		Returns on Combined Perrigo and Mylan Holdings	
	Perrigo	Mylan	Dr. Nye's But-for Scenario <sup>[4]</sup>	Actual <sup>[5]</sup>
Northern Trust Investments, Inc.	1,157	3,683	6.06%	-0.68%
Davidson Kempner Capital Management LP	1,141	0	11.38%	-10.23%
Norges Bank Investment Management (NBIM)	1,125	3,161	6.41%	-1.31%
BlackRock Investment Management, LLC	1,109	1,388	8.46%	-4.99%
Eaton Vance Management	1,104	21	11.32%	-10.12%
First Manhattan Company	1,103	115	11.06%	-9.65%
Discovery Capital Management, LLC	1,098	1,808	7.82%	-3.85%

Source: Thomson Reuters

Note:

[1] Mylan made the final tender offer to acquire Perrigo on 9/14/15 and the offer expired at 8:00 AM ET on 11/13/15 with less than 40% of Perrigo shares tendered.

[2] Includes the 25 institutional investors with the largest holdings in Perrigo as of 9/30/15.

[3] Number of shares in thousands. These data are available at the end of the quarter.

[4] Uses Perrigo's returns measured from the U.S. market close on 11/12/15 to the offer value of \$174.36 that Dr. Nye assumes. Assumes no change in Mylan's price from the U.S. market close on 11/12/15 to the U.S. market open on 11/13/15.

[5] Uses Perrigo's and Mylan's returns measured from the U.S. market close on 11/12/15 to the U.S. market open on 11/13/15.

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### ACADEMIC POSITIONS

2000–present	HARVARD BUSINESS SCHOOL Eugene Holman Professor of Business Administration. Research interests include venture capital, private equity, entrepreneurial finance, institutional investors, corporate governance, optimal security design, dynamic capital structure, long-run performance of firms, and sources of financing for start-up businesses.	BOSTON, MA
1998–2000	HARVARD BUSINESS SCHOOL Associate Professor of Business Administration.	BOSTON, MA
1995–1998	HARVARD BUSINESS SCHOOL Assistant Professor of Business Administration.	BOSTON, MA
1993–1995	UNIVERSITY OF CHICAGO Assistant Professor of Finance and Policy at the Graduate School of Business. Created new course on the financing of start-up companies.	CHICAGO, IL
1995–present	NATIONAL BUREAU OF ECONOMIC RESEARCH Research Associate. Appointed as an NBER affiliate in corporate finance.	CAMBRIDGE, MA

### EDUCATION

1989–1993	HARVARD UNIVERSITY Received Ph.D. in Business Economics, June 1993.	CAMBRIDGE, MA
1987–1989	OXFORD UNIVERSITY Graduated <i>summa cum laude</i> with a M.Sc. in economics, July 1989.	OXFORD, UK
1982–1987	HARVARD COLLEGE Graduated <i>summa cum laude</i> with an A.B. in biology.	CAMBRIDGE, MA



## **PUBLICATIONS**

### **Books**

- The Venture Capital Cycle, (MIT Press, Cambridge) October 1999. (Joint with Josh Lerner.) First Edition.
- The Money of Invention, (Harvard Business School Press, Boston) November 2001. (Joint with Josh Lerner.)
- Entrepreneurial Finance: A Casebook, (John Wiley, New York) December 2001. (Joint with William Sahlman.)
- The Venture Capital Cycle, (MIT Press, Cambridge) October 1999. (Joint with Josh Lerner.) Second Edition. 2004.
- Private Equity Finance, (Anthem Press, London). March 2019. (Joint with Victoria Ivashina and Richard Ruback.)

### **Articles in Refereed Journals**

- “Optimal Investment, Monitoring, and the Staging of Venture Capital,” *Journal of Finance* 50, 1461-1489. December 1995. Reprinted in Michael Wright and Ken Robbie, editors, *Venture Capital* (International Library of Management) (Aldershot: Dartmouth Publishing, 1997.)
- “Grandstanding in the Venture Capital Industry,” *Journal of Financial Economics* 42, 133–156. July 1996.
- “The Rise and Fall of Venture Capital,” *Business and Economic History* 23, 1–24. Winter 1994. Awarded Newcomen Prize essay for best paper in business history.
- “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements,” *Journal of Law and Economics* 39, 463–498. October 1996. (with Josh Lerner.)
- “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure Capital-backed Companies,” *Journal of Finance* 52, 1791–1821. December 1997. (with Alon Brav.) Awarded the Smith-Breeden Distinguished Paper Award.
- “Venture Capital Growing Pains: Should the Market Diet?” *Journal of Banking and Finance* 22, 1089–1104. August 1998.
- “An Analysis of Compensation in the US Venture Capital Partnership,” *Journal of Financial Economics* 51, 3–44. January 1999. (with Josh Lerner.)
- “Venture Capital Distributions: Short-Run and Long-Run Reactions,” *Journal of Finance* 53, 2161–2184. December 1998. (with Josh Lerner.)
- “Conflict of Interest in the Issuance of Public Securities: Evidence from Venture Capital,” *Journal of Law and Economics* 42, 1-28. April 1999. (with Josh Lerner.)
- “What Drives Venture Capital Fundraising?” *Brookings Proceedings on Microeconomic Activity*, 149-192. August 1998. (with Josh Lerner.)
- “Money Chasing Deals? The Impact of Fund Inflows on Private Equity Valuations,” *Journal of Financial Economics* 55, 281-325. February 2000. (with Josh Lerner.)
- “Is the Abnormal Return Following Equity Issuances Anomalous?” *Journal of Financial Economics* 56, 209–250. May 2000. (with Alon Brav and Chris Geczy.)
- “Institutional Investors and Equity Prices,” *Quarterly Journal of Economics* 114, 229–260. 2001. (with Andrew Metrick.)
- “The Venture Capital Revolution,” *Journal of Economic Perspectives* 15, 145–168. Spring 2001. (with Josh Lerner.)
- “Who Underreacts to Cash Flow News?” *Journal of Financial Economics* 66, 409–462. 2002. (with Randy Cohen and Tuomo Vuolteenaho.)
- “The Role of Lock-ups in Initial Public Offerings Provisions,” *Review of Financial Studies* 16, 1–29. Spring 2003. (with Alon Brav.)
- “Corporate Governance and Equity Prices,” *Quarterly Journal of Economics* 118, 107-156. February 2003. (with Joy Ishii and Andrew Metrick.)
- “The Really Long-Run Performance of Initial Public Offerings: Evidence from the Pre-Nasdaq Period, 1933–1972,” *Journal of Finance* 56, 1355–1392. August 2003. (with Josh Lerner.)

- “The Determinants of Board Structure and Function in Entrepreneurial Firms,” *Journal of Law and Economics* 46, 569–598. October 2003. (with Malcolm Baker.)
- “Entrepreneurial Spawning: Corporations and the Genesis of New Ventures, 1986–1999,” *Journal of Finance* 60, 577–614. April 2005. (with Josh Lerner and David Scharfstein.)
- “Large Blocks of Stock: Prevalence, Size, and Measurement,” *Journal of Corporate Finance* 12, 594–618. June 2006. (with Rudiger Fahlenbrach, Jennifer Dlugosz, and Andrew Metrick.)
- “Venture Capital Investment Cycles: The Impact of Public Markets,” *Journal of Financial Economics*, 1–23. 2008. (with Anna Kovner, Josh Lerner, and David Scharfstein.)
- “Specialization and Success: Evidence from Venture Capital,” *Journal of Economic and Management Strategy* 18, 817–845. 2009. (with Anna Kovner, Josh Lerner, and David Scharfstein.)
- “Extreme Governance: An Analysis of Dual-Class Firms in the United States,” *Review of Financial Studies* 23, 1051–1088. 2010. (with Joy Ishii and Andrew Metrick.)
- “Performance Persistence in Entrepreneurship and Venture Capital,” *Journal of Financial Economics* 96, 18–32. 2010. (with Anna Kovner, Josh Lerner, and David Scharfstein.)
- “Buy Local? The Geography of Successful Venture Capital Expansion,” *Journal of Urban Economics* 67, 90–102. 2010. (with Henry Chen, Anna Kovner, and Josh Lerner.)
- “The Cost of Friendship,” *Journal of Financial Economics* 119, 626–644. March 2016. (with Vladimir Mukharlyamov and Yuhai Xuan.)
- “What Do Private Equity Firms Say They Do?” *Journal of Financial Economics* 121, 449–476. September 2016. (with Steven N. Kaplan and Vladimir Mukharlyamov.)
- “More than Money: Venture Capitalists on Boards.” Forthcoming in *Journal of Law, Economics, and Organizations*. May 2018. (with Natee Amornsiripanitch and Yuhai Xuan.)
- “The Other Diversity Dividend,” *Harvard Business Review*. July 2018. (with Silpa Kovvali.)
- “How Do Venture Capitalists Make Decisions,” December 2017. Forthcoming in the *Journal of Financial Economics*. (joint with Will Gornall, Steve Kaplan, and Ilya Strebulaev.)
- “Gender Effects in Venture Capital,” March 2018. Forthcoming in the *Journal of Financial and Quantitative Analysis*. Joint with Vladimir Mukharlyamov, Emily Weisburst, and Yuhai Xuan.)

### **Other Articles**

- “Venture Capital and the Creation of Public Companies: Do Venture Capitalists Really Bring More than Money?” *Journal of Private Equity* 1, 15–32. Fall 1997. (with Josh Lerner.)
- “Risk and Reward in Private Equity Investments: The Challenge of Performance Assessment,” *Journal of Private Equity* 1, 5–12. Winter 1997. (with Josh Lerner.)
- “Resource Allocation, Incentives, and Control: The Importance of Venture Capital in Financing Entrepreneurial Firms,” *Entrepreneurship, SMEs, and the Macroeconomy* (Cambridge University Press, Cambridge), 206–238. February 1997.
- “Venture Capital,” *The Handbook of Technology Management* (Richard Dorf, Editor-in-Chief). January 1997. (with Josh Lerner.)
- “The Determinants of Corporate Venture Capital Success: Organizational Structure, Incentives, and Complementarities,” NBER Conference Volume on Concentrated Corporate Ownership, 17–54. September 1998.
- “Capital Formation and Investment in Venture Markets: An Assessment of Market Imperfections,” *The Economic Evaluation of Technological Change* (Richard Spivack, Editor). June 1998.
- “Corporations and the Financing of Innovation: The Corporate Venturing Experience,” *The Atlanta Federal Reserve Bank Conference Volume*, 1–17. 2002.
- “Venture Capital and Private Equity,” *The Handbook of Corporate Finance* (Espan Eckbo, Editor) (North-Holland Press, New York). 2002.
- “Short-Term America Revisited? Boom and Bust in the Venture Capital Industry and the Impact on Innovation,” *Innovation Policy and the Economy* 3, 1–28. March 2002. (with Josh Lerner.)
- “Venture Capital,” Chap. D5 of *The Handbook of Modern Finance* (Dennis Lougue, Editor). 2007. (with Josh Lerner.)
- “Equity Financing,” *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and*

introduction (Zoltan Acs and David B. Audretsch, Editor). 2010. (with Josh Lerner.)  
 “The Role of Venture Capitalists in the Acquisition of Private Companies.” In *Research Handbook on International Banking and Governance*, edited by James Barth, Chen Lin, and Clas Wihlborg. Cheltenham, UK: Edward Elgar Publishing, 2012. (with Yuhai Xuan).

### **Working Papers**

“Diversity in Innovation,” January 2019. (with Sophie Calder-Wang.)  
 “Homophily in Entrepreneurial Team Formation. January 2019. (with Sophie Calder-Wang and Kevin Huang.)  
 “And the Children Shall Lead: Gender Diversity and Performance in Venture Capital.” May 2018. (with Sophie Calder-Wang.)  
 “Gender Effects in Venture Capital,” March 2018. Joint with Vladimir Mukharlyamov, Emily Weisburst, and Yuhai Xuan.)  
 “To Err is Human, To Forgive is a Mistake: Evidence from Venture Capital Hiring,” December 2013 (with Vladimir Mukharlyamov and Yuhai Xuan.)  
 “Bridge Building in Venture Capital: Evidence from Acquisitions of Venture Capital-backed Companies,” December 2011. Revise and resubmit at *Review of Financial Studies* (with Yuhai Xuan.)  
 “Reputation and Contractual Flexibility: Evidence from Venture Capital Distribution Pricing Policies,” August 2011. (with Timothy Dore and Andrew Metrick.)  
 “Why Experienced Venture Capitalists Leave Money on the Table: Evidence from Initial Public Offerings,” July 2009. (with Alon Brav and Tim Dore.)  
 “Institutions, Capital Constraints and Entrepreneurial Firm Dynamics: Evidence from Europe,” November 2006. (with Mihir Desai and Josh Lerner.)  
 “Skill vs. Luck in Entrepreneurship and Venture Capital: Evidence from Serial Entrepreneurs,” December 2006. (with Anna Kovner, Josh Lerner, and David Scharfstein.)  
 “The Role of Venture Capitalists in the Acquisition of Private Companies,” October 2005. (with Yuhai Xian.)  
 “Incentives vs. Control: An Analysis of U.S. Dual-class Companies,” April 2004. (with Andrew Metrick and Joy Ishii.)  
 “Ownership and Control in Entrepreneurial Firms: An Examination of Convertible Securities in Venture Capital Investment,” January 2000.  
 “An Analysis of Executive Compensation, Ownership, and Control in Entrepreneurial Firms,” May 2000. (with Malcolm Baker.)

### **Opinion — Editorials**

“This Tax Cut Will Pay Dividends,” *Wall Street Journal*, August 13, 2002. (with Andrew Metrick and Jeremy Siegel.)

### **Projects in Process**

- “The Evolution of Ownership and Control in Entrepreneurial Firms.” (with Malcolm Baker.)
- “Dual Class IPOs.” (with Malcolm Baker.)
- “Pre-public Financing in Entrepreneurial Ventures.”
- “Institutional Ownership and Corporate Governance.” (with Andrew Metrick and Joy Ishii.)
- “The Dynamics of Global Entrepreneurship.” (with Mihir Desai and Josh Lerner.)
- “The Determinants of Venture Capital Acquisitions.” (with Yuhai Xuan.)
- “The Determinants of Entrepreneurial Success.” (with Anna Kovner, Josh Lerner, and David Scharfstein.)
- “Risk and Return in Private Equity.” (with Leslie Jeng, Josh Lerner, and Andrew Metrick.)
- “Corporate Governance through Time.” (with Martijn Cremers, Allen Ferrell, and Andrew Metrick.)

## **COURSE MATERIALS**

### **Cases**

- “Abraaj Capital and Acibadem Healthcare Investment (A).” Harvard Business School Case 214-021.
- “Abraaj Capital and Acibadem Healthcare Investment (B).” Harvard Business School Case 214-022.
- “Advantage Partners: Dia Kanri (A).” Harvard Business School Case 214-016.
- “Advantage Partners: Dia Kanri (B).” Harvard Business School Case 214-017.
- “The Advent Israel Venture Capital Program.” Harvard Business School Case 298-072.
- “ALWAYSi.” Harvard Business School Case 201-075.
- “APV Technology Partners II, L.P.” Harvard Business School Case 298-048.
- “Ardian: The Sale of Diana.” Harvard Business School Case 215-033.
- “Aspect Ventures.” Harvard Business School Case 217-046.
- “Bain Capital: Outback Steakhouse.” Harvard Business School Case 212-087.
- “Bang Networks, Inc.” Harvard Business School Case 201-074.
- “BioTransplant, Inc.: Initial Public Offering, January 1996.” Harvard Business School Case 297-095.
- “Cachet Technologies.” Harvard Business School Case 200-031.
- “Cambridge Technology Partners: 1991 Start Up.” Harvard Business School Case 298-044.
- “Cambridge Technology Partners: Corporate Venturing (August 1996).” Harvard Business School Case 297-033.
- “Car Wash Partners, Inc.” Harvard Business School Case 299-034.
- “Charles River Velocity.” Harvard Business School Case 201-092.
- “Charter Communication Bankruptcy.” Harvard Business School Case 211-035.
- “Clover Food Lab.” Harvard Business School Case Study 818-073.
- “Dell Ventures.” Harvard Business School Case 200-062.
- “Digital Everywhere, Inc.” Harvard Business School Case 298-099.
- “edocs, Inc. (A).” Harvard Business School Case 200-015.
- “edocs, Inc. (B-1): Kevin Laracey.” Harvard Business School Case 200-020.
- “edocs, Inc. (B-2): Jonathon Guerster.” Harvard Business School Case 200-021.
- “Efficient Market Services: August 1993 (A).” Harvard Business School Case 298-009.
- “Efficient Market Services: August 1993 (B1), EMS Management.” Harvard Business School Case 298-010.
- “Efficient Market Services: August 1993 (B2), Comdisco Ventures.” Harvard Business School Case 298-011.
- “Elliot Lebowitz.” Harvard Business School Case 297-094.
- “Endeca: New Growth Opportunities.” Harvard Business School Case 206-041.
- “First Mark Capital.” Harvard Business School Case 212-041.
- “Fitzpatrick Hotel Group (A).” Harvard Business School Case 298-002.
- “Fitzpatrick Hotel Group (B1): Niall Carroll.” Harvard Business School Case 298-003.
- “Fitzpatrick Hotel Group (B2): Paddy Fitzpatrick.” Harvard Business School Case 298-004.
- “Founders Fund.” Harvard Business School Case 211-040.
- “Genset Initial Public Offering (A).” Harvard Business School Case 297-096.
- “Genset Initial Public Offering (B).” Harvard Business School Case 297-097.
- “Genset: 1989.” Harvard Business School Case 298-070.
- “Global Digital Utilities Corp.” Harvard Business School Case 297-065.
- “Globant: Going Public.” Harvard Business School Case 215-021.
- “Harrah’s Entertainment LBO.” Harvard Business School Case 13-054.
- “HgCapital and the Visma Transaction: (A).” Harvard Business School Case 214-018.
- “HgCapital and the Visma Transaction: (B).” Harvard Business School Case 214-019.
- “HgCapital and the Visma Transaction: (C).” Harvard Business School Case 214-020.
- “Honest Tea.” Harvard Business School Case 201-076.
- “Hudson Manufacturing.” Harvard Business School Case 203-064.
- “ICSGroup.” Harvard Business School Case 819-097.
- “Knightsbridge Advisers, Inc.” Harvard Business School Case 296-054.



- “Knoll Furniture: Going Public.” Harvard Business School Case 202–114.
- “Loma Vista Medical.” Harvard Business School Case 819-050.
- “MSE, Inc. Privatization: August 1997.” Harvard Business School Case 298–135.
- “MSE, Inc. Privatization: August 1997 (Abridged).” Harvard Business School Case 298–136.
- “New Oriental.” Harvard Business School Case.
- “New York Bagel: Hungary, April 1994.” Harvard Business School Case 297–078.
- “NSK Software Technologies Ltd.” Harvard Business School Case 298–071.
- “Nykaa.com: A Passion for Beauty.” Harvard Business School Case 218-049.
- “Ocular.” Harvard Business School Case 202–118.
- “Panoramic Power.” Harvard Business School Case 818-072.
- “Pet Doctors: 1999.” Harvard Business School Case 200–016 “The Prague Post.” Harvard Business School Case 299–033.
- “Private Equity Finance Vignettes: 2016.” Harvard Business School Case 216-005.
- “Private Equity Vignettes: 2014.” Harvard Business School Case 213-026.
- “Rapid7.” Harvard Business School Case 817-077.
- “Sarvega.” Harvard Business School Case 204–137.
- “Shenzhen Capital Group: A Pioneer in China’s VC Industry” Harvard Business School Case 211-029.
- “Sky Air, Inc.” Harvard Business School Case 297–110.
- “TaskRabbit.” Harvard Business School Case 217-047.
- “Torrent Systems.” Harvard Business School Case 298–084.
- “Tutor Time (A).” Harvard Business School Case 297–064.
- “Tutor Time (B).” Harvard Business School Case 297–074.
- “United Capital Partners (A).” Harvard Business School Case 213-044.
- “United Capital Partners (B).” Harvard Business School Case 213-045.
- “Venture Capital in Ireland: Getting Their ACT Together.” Harvard Business School Case 298–001.
- “Vueling Airlines.” Harvard Business School Case.
- “Xedia and Silicon Valley Bank (A).” Harvard Business School Case 298–119.
- “Xedia and Silicon Valley Bank (B1): The Bank’s Perspective.” Harvard Business School Case 298–120.
- “Xedia and Silicon Valley Bank (B2): The Company’s Perspective.” Harvard Business School Case 298–121.
- “Xedia and Silicon Valley Bank (C): The Final Agreement.” Harvard Business School Case 298–122.
- “Yo-Yo Ma and Silkroad.” Harvard Business School Case 818-110.
- “ZEFER: November 1998.” Harvard Business School Case 299–032.

#### **Course Notes and Teaching Notes**

- “Advent Israel Venture Capital Program TN.” Harvard Business School Teaching Note 299–054.
- “APV Technology Partners II, L.P. TN.” Harvard Business School Teaching Note 299–053.
- “Beta Golf.” Harvard Business School Teaching Note 202–062.
- “BioTransplant Inc.: Initial Public Offering, January 1996 TN.” Harvard Business School Teaching Note 299–055.
- “Cachet Technologies.” Harvard Business School Teaching Note 202–068.
- “Cambridge Technology Partners —1991 Start Up TN.” Harvard Business School Teaching Note 299–057.
- “Cambridge Technology Partners: Corporate Venturing (August 1996) TN.” Harvard Business School Teaching Note 299–056.
- “Carlton Polish Co.” Harvard Business School Teaching Note 202–076.
- “Car Wash Partners, Inc. TN.” Harvard Business School Teaching Note 299–058.
- “Contracting and Control in Venture Capital.” Harvard Business School Note 298–067.
- “Dell Ventures.” Harvard Business School Teaching Note 202–072.
- “Digital Everywhere, Inc. TN.” Harvard Business School Teaching Note 299–059.

- “edocs, Inc. Series.” Harvard Business School Teaching Note 202–064.
- “Elliot Lebowitz TN.” Harvard Business School Teaching Note 299–060.
- “Emergence of Silicon Wadi.” Harvard Business School Note 204–156.
- “Fenchel Lampshade Company.” Harvard Business School Teaching Note 202–063.
- “Efficient Market Services: August 1993 Series TN.” Harvard Business School Teaching Note 299–061.
- “The Entrepreneurial Manager: Course Overview, Harvard Business School Case.” 818-080
- “The Entrepreneurial Manager, Module I: Defining and Developing the Business Model.” Harvard Business School Case 817-108.
- “The Entrepreneurial Manager, Module 2 Part 1: Resourcing the Business Model.” Harvard Business School Case 817-109.
- “The Entrepreneurial Manager, Module 2 Part 2: Resourcing the Business Model.” Harvard Business School Case 817-110.
- “Fitzpatrick Hotel Group Series TN.” Harvard Business School Teaching Note 299–062.
- “Genset: 1989 TN.” Harvard Business School Teaching Note 299–063.
- “Genset Initial Public Offering (A) & (B) TN.” Harvard Business School Teaching Note 299–064.
- “Global Digital Utilities Corporation TN.” Harvard Business School Teaching Note 299–065.
- “HIMSCORP, Inc.” Harvard Business School Teaching Note 202–073.
- “Honest Tea.” Harvard Business School Teaching Note 202–069.
- “Introduction to Entrepreneurial Finance.” Harvard Business School Note 298–061.
- “Introduction to Private Equity Finance.” Harvard Business School Note 213-026.
- “Knightsbridge Advisers, Inc. TN.” Harvard Business School Teaching Note 299–066.
- “Knot, The.” Harvard Business School Teaching Note 202–070.
- “MSE, Inc. Privatization: August 1997 & MSE, Inc. Privatization: August 1997 (Abridged) TN.” Harvard Business School Teaching Note 299–067.
- “Nantucket Nectars.” Harvard Business School Teaching Note 202–074.
- “New York Bagel: Hungary, April 1994 TN.” Harvard Business School Teaching Note 299–068.
- “A Note on Angel Financing.” Harvard Business School Note 298–083.
- “A Note on LBO Capital Structure.” Harvard Business School Note 213-091.
- “A Note on Franchising.” Harvard Business School Note 297–108.
- “A Note on Government Sources of Financing for Small Businesses.” Harvard Business School Note 298–015.
- “Note on Strategic Alliances, A.” Harvard Business School Note 298–047.
- “A Note on the Internet.” Harvard Business School Note 297–109.
- “A Note on Private Equity Exits.” Harvard Business School Note 213-112.
- “A Note on the Venture Capital Industry.” Harvard Business School Note 295–065.
- “A Note on Valuation in Entrepreneurial Ventures.” Harvard Business School Note 298–082.
- “A Note on Valuation in Private Equity.” Harvard Business School Note 213-034.
- “NSK Software Technologies Ltd. TN.” Harvard Business School Teaching Note 299–069.
- “Parenting Magazine TN.” Harvard Business School Teaching Note 202–065.
- “Penelope’s Personal Pocket Phones TN.” Harvard Business School Teaching Note 299–070.
- “Prague Post, The TN.” Harvard Business School Teaching Note 299–071.
- “Private Equity Valuation in Emerging Markets.” Harvard Business School Note 213-043.
- “Record Masters.” Harvard Business School Teaching Note 202–075.
- “Penelope’s Personal Pocket Phones.” Harvard Business School Case 299–004.
- “Sky Air, Inc. TN.” Harvard Business School Teaching Note 299–072.
- “Torrent Systems TN.” Harvard Business School Teaching Note 299–073.
- “Tutor Time (A) TN.” Harvard Business School Teaching Note 299–074.
- “Tutor Time (B) TN.” Harvard Business School Teaching Note 299–078.
- “Venture Capital in Ireland: Getting Their ACT Together TN.” Harvard Business School Teaching Note 299–075.

- “Xedia and Silicon Valley Bank Series TN.” Harvard Business School Teaching Note 299–076.
- “ZEFER: November 1998 TN.” Harvard Business School Teaching Note 299–077.

#### **SEMINARS AND CONFERENCE PRESENTATIONS — Academic**

American Economic Association: Annual Meeting, January 1995, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”

American Finance Association: Annual Meeting, January 1995, “An Analysis of Compensation in the U.S. Venture Capital Partnership.”

American Finance Association: Annual Meeting, January 1996, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”

American Finance Association: Annual Meeting, January 1999, “What Drives Venture Capital Fundraising.”

American Finance Association: Annual Meeting, January 2000, “An Analysis of Executive Compensation, Ownership, and Control in Entrepreneurial Firms.”

American Finance Association: Annual Meeting, January 2004, “Incentives vs. Control: An Analysis of U.S. Dual-class companies.”

American Finance Association: Annual Meeting, January 2015, “Cost of Friendship.”

American Finance Association: Annual Meeting, January 2015, “What Do Private Equity Firms (Say) They Do?”

American Law and Economics Association: Annual Meeting, May 1996, “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements.”

Association of Financial Economists: Annual Meeting, January 2001, “The Determinants of Board Structure and Function in Entrepreneurial Firms.”

Association of Financial Economists: Annual Meeting, January 2006, “Skill vs. Luck: An Analysis of Serial Entrepreneurs.”

Arizona State University School of Business: Finance Seminar, December 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”

Boston University: Finance Seminar, December 1996, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”

Brandeis University: Entrepreneurship Conference, April 2014, “The Next Big Question in Entrepreneurship Research.”

Brookings Institute: Microeconomic Conference, June 1998, “What Drives Venture Fundraising?”

Business and Economic History: Annual Meeting, March 1994, “The Rise and Fall of Venture Capital.”

Center for Research on Security Prices: Biannual Meeting, March 1995, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”

Center for Research on Security Prices: Biannual Meeting, November 1994, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”

Center for Economic and Policy Research: European Finance Conference on Financing Innovation, November 1998, “What Drives Venture Capital Fundraising?”

Columbia Law School: Law and Economics Seminar, November 1995, “An Analysis of Compensation in the U.S. Venture Capital Partnership.”

Columbia Law School: Law and Economics Seminar, November 1995, “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements.”

Columbia Law School: Financing Innovation Conference, December 1997, “An Analysis of Covenants in Venture Capital Investments.”

Columbia University School of Business: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

Copenhagen Business School: Finance Seminar, May 1999, “An Analysis of Executive Compensation,



Ownership, and Control in Closely Held Firms.”

Cornell Business School: Finance Seminar, October 2001, “Corporate Governance and Equity Prices.”

Federal Reserve Bank of Chicago: January 1994, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”

Duke University Fuqua Business School: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

Georgetown Law School: April 2003, “Corporate Governance and Equity Prices.”

Harvard Business School: Business History Seminar, December 2000, “The History of Silicon Valley.”

Harvard Business School: Entrepreneurship Conference, December 2000, “The Really Long-run Performance of Initial Public Offerings.”

Harvard Business School: Financial Decision and Control Workshop, July 1994, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”

Harvard Business School: Financial Decision and Control Workshop, July 1996, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”

Harvard Business School: Financial Decision and Control Workshop, July 1997, “Reputation and Conflict of Interest in the Issuance of Public Securities: Evidence from Venture Capital.”

Harvard Business School: Financial Decision and Control Workshop, July 1998, “How are Large Institutions Different From Other Investors? Why Do These Differences Matter for Equity Prices and Returns?”

Harvard Business School: Finance Seminar, February 1994, “An Analysis of Compensation in the U.S. Venture Capital Partnership.”

Harvard Business School: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

Harvard Business School: Finance Seminar, October 1996, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”

Harvard Business School: Finance Seminar, May 1999, “An Analysis of CEO Compensation, Ownership, and Control in Closely Held Firms.”

Harvard Business School: Finance Seminar, October 2011, “The Cost of Friendship.”

Harvard Business School: Research Symposium, May 2018, “Diversity in the Innovation Sector.”

Harvard Business School: Organizations and Markets Seminar, May 1999, “An Analysis of CEO Compensation, Ownership, and Control in Closely Held Firms.”

Harvard Business School: Finance Seminar, November 2000, “The Venture Capital Revolution.”

Harvard Business School: Finance Seminar, March 2006, “Skill vs. Luck: An Analysis of Serial Entrepreneurs.”

Harvard Business School: Finance Seminar, December 2008, “Bridge Building in Venture Capital: Evidence from Acquisitions.”

Harvard Business School: Finance Seminar, December 2014, “More than Money: Venture Capitalists on Boards.”

Harvard Business School: Finance Seminar, February 2015, “What do Private Equity Firms (Say) They Do?”

Harvard Business School: Organizational Behavior Seminar, February 2012, “The Role of Social Ties in Venture Capital.”

Harvard Kennedy School: Gender Diversity Conference, June 2018, “And the Children Shall Lead: Gender Diversity and Performance in Venture Capital.”

Harvard University Department of Economics: Workshop, December 1992, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”

Harvard University Department of Economics: Organizations Workshop, December 1996, “Reputation and Conflict of Interest in the Issuance of Public Securities: Evidence from Venture Capital.”

Harvard University Department of Economics: Organizations Workshop, December 2002, “Entrepreneurial Spawning.”

Harvard University Department of Economics: Organizations Workshop, December 1998, “Are the Hundred-Million-Dollar Managers Just Like Everyone Else? An Analysis of the Stock Ownership of Large Institutions.”

Harvard University Department of Economics: Organizations Workshop, September 2003, “Entrepreneurial Spawning: Corporations and the Genesis of New Ventures, 1986–1999.”

Hebrew University School of Business: Finance Seminar, March 1994, “An Analysis of Compensation in the U.S. Venture Capital Partnership.”

Hebrew University School of Business: Finance Seminar, March 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”

Hebrew University School of Business: Distinguished Lecture: December 2014, “What Do Private Equity Firms (Say) They Do?”

London School of Economics: Venture Capital Conference, October 1998, “How You Get There Matters: The Path Dependency of Executive Compensation in Closely Held Firms.”

Massachusetts Institute of Technology: Organizations Workshop, March 1996, “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements.”

Massachusetts Institute of Technology and Harvard University: Public Finance Workshop, March 1998, “What Drives Venture Fundraising?”

National Bureau of Economic Research: Corporate Finance Group, April 1994, “Optimal Investment, Monitoring, and the Staging of Venture Capital

National Bureau of Economic Research: Entrepreneurship Group, July 2017, “How do Venture Capitalists Make Decisions.”

National Bureau of Economic Research: Summer Institute, July 1994, “An Analysis of Compensation in the U.S. Venture Partnership Agreement.”

National Bureau of Economic Research: Summer Institute, July 1995, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”

National Bureau of Economic Research: Summer Institute, July 1996, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”

National Bureau of Economic Research: Finance Series, December 1997, “Are the Hundred-Million-Dollar Managers Just Like Everyone Else? An Analysis of the Stock Ownership of Large Institutions.”

National Bureau of Economic Research: Finance Series, November 1998, “How You Get There Matters: The Path Dependency of Executive Compensation in Closely-Held Firms.”

National Bureau of Economic Research: Summer Institute, July 2001, “Corporate Governance and Equity Prices.”

New York Federal Reserve Bank: May 2000, “The Determinants of Board Structure and Function in Entrepreneurial Firms.”

New York University, Stern School of Business: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

New York University, Stern School of Business: Finance Seminar, February 1999, “How You Get There Matters: The Path Dependency of Executive Compensation in Closely-Held Firms.”

New York University, Stern School of Business: Finance Seminar, October 2006, “Skill vs. Luck: An Analysis of Serial Entrepreneurs.”

Northwestern University, Kellogg Business School: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

Northwestern University, Kellogg Business School: Finance Seminar, October 1997, “Money Chasing Deals? The Impact of Fund Inflows on Private Equity Valuations.”

Norwegian School of Management: Finance Seminar, May 1999, “An Analysis of Executive Compensation, Ownership, and Control in Closely Held Firms.”

Ohio State University: Finance Seminar, October 1998, “How You Get There Matters: The Path Dependency of Corporate Governance in Closely Held Firms.”

Oxford University: Graduate Student Seminar, May 1989.

Oxford University: Finance Seminar, May 1999, “An Analysis of Executive Compensation, Ownership,

- and Control in Closely Held Firms.”
- Queens University (Kingston, Ontario) School of Business: Finance Seminar, November 1996, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”
- Rutgers University: Finance Seminar, October 1997, “Money Chasing Deals? The Impact of Fund Inflows on Private Equity Valuations.”
- Stanford University Graduate School of Business: Strategy Workshop, January 1993, “Grandstanding in the Venture Capital Industry.”
- Stanford University Graduate School of Business: Center for Economic and Political Research, March 1997, “The Valuation of Private Equity Investments.”
- Stanford University: Finance Seminar, October 2012, “The Cost of Friendship.”
- Stanford University: Financing Innovation Conference, November 2018, “And the Children Shall Lead: Gender Diversity and Performance in Venture Capital.”
- Stockholm Business School: September 2003, “Entrepreneurial Spawning: Corporations and the Genesis of New Ventures, 1986–1999.”
- Tel Aviv University School of Business: Finance Seminar, March 1994, “An Analysis of Compensation in the U.S. Venture Capital Partnership.”
- Tel Aviv University School of Business: Finance Seminar, March 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”
- Tel Aviv University School of Business: Finance Seminar, December 2014, “What Do Private Equity Firms (Say) They Do?”
- University of Arizona School of Business: Finance Seminar, December 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”
- University of California, Davis: Diversity Conference, December 2017, “And the Children Shall Lead: Gender Diversity and Performance in Venture Capital.”
- University of California at Berkeley, Haas School of Business: Finance Seminar, April 1993, “Grandstanding in the Venture Capital Industry.”
- University of California at Los Angeles: Finance Seminar, May 1997, “The Valuation of Private Equity Investments.”
- University of California at Los Angeles: Behavioral Finance Conference, April 1998, “Are the Hundred-Million-Dollar Managers Just Like Everyone Else? An Analysis of the Stock Ownership of Large Institutions.”
- University of Chicago Graduate School of Business: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”
- University of Chicago Graduate School of Business: Information and Uncertainty Seminar, April 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”
- University of Chicago Graduate School of Business: Finance Seminar, May 2006, “Skill vs. Luck: An Analysis of Serial Entrepreneurs.”
- University of Chicago Economics Department: Economic and Legal Organization Workshop, February 1994, “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements.”
- University of Chicago Economics Department: Economic and Legal Organization Workshop, October 1997, “Reputation and Conflict of Interest in the Issuance of Public Securities: Evidence from Venture Capital.”
- University of Georgia School of Business: Finance Seminar, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”
- University of Illinois School of Business: Finance Seminar, October 1994, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”
- University of Michigan School of Business: Finance Seminar, November 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”
- University of North Carolina School of Business: Finance Seminar, November 1995, “Venture Capital Distributions: Short-Run and Long-Run Reactions.”
- University of Pennsylvania Wharton School: Finance Workshop, March 1998, “Money Chasing Deals? The

Impact of Venture Inflows of Private Equity Prices.”  
 University of Rochester Simon School of Business: Finance Seminar, December 1996, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”  
 University of Rochester Simon School of Business: Organizations Seminar, February 1993, “Grandstanding in the Venture Capital Industry.”  
 University of Washington: Finance Seminar, November 2018, “And the Children Shall Lead: Gender Diversity and Performance in Venture Capital.”  
 Virginia Tech University School of Business: Finance Seminar, October 1995, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies.”  
 World Bank: Finance Seminar, May 1999, “An Analysis of CEO Compensation, Ownership, and Control in Closely Held Firms.”  
 Western Finance Association: Annual Meeting, June 1994, “Optimal Investment, Monitoring, and the Staging of Venture Capital.”  
 Western Finance Association: Annual Meeting, June 1995, “The Long-run Underperformance of Seasoned Equity Offerings Revisited.”  
 Western Finance Association: Annual Meeting, June 1996, “The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements.”  
 Western Finance Association: Annual Meeting, June 1997, “Reputation and Conflict of Interest in the Issuance of Public Securities: Evidence from Venture Capital.”  
 Western Finance Association: Annual Meeting, June 1998, “How are Large Institutions Different from Other Investors? Why These Differences Matter for Equity Prices and Returns?”  
 Yale University, School of Management: Finance Seminar, January 1993, “Grandstanding in the Venture Capital Industry.”

#### **SPEECHES AND CONFERENCE PRESENTATIONS — Practitioner**

Advanced Technology Program, National Institute for Standards and Technology and NBER Conference on Financing Innovation, June 1998.  
 Amsterdam Institute of Finance, October 1994, “Venture Capital and the Finance of Emerging Companies.”  
 American Friends of the Technion, October 1998, “The Development of High Technology and Venture Capital in Israel.”  
 AT&T Small Business Conference, April 1994, “Venture Capital: The Road Ahead.”  
 Center for Economic Policy Research, Venture Capital Conference, March 1997, “The Pricing of Private Equity Investments: A Window on the Returns of Tomorrow.”  
 Deloitte and Touche, May 2003, “Entrepreneurial Leadership.”  
 Ernst and Young Silicon Valley Venture Capital Conference, 2002, “The Future of Venture Capital.”  
 Ernst and Young Buyout Roundtable, 2002, “Corporate Governance and Private Equity.”  
 Greenwich Roundtable, 2015, “Skill in Private Equity.”  
 Harvard Business School Venture Capital Conference, December 1995, “Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure-backed Companies” and “Venture Capital Distributions: Short-run and Long-run Reactions.”  
 Harvard Business School Alumni Series, May 2000 and May 2003, “The Future of Private Equity.”  
 Harvard Business School European Conference, June 2003, “European Private Equity.”  
 Harvard Business School Global Alumni Conference, June 1998, “Consolidation Buy-outs.”  
 Harvard Business School Global Alumni Conference, May 2001, “Venture Capital 2001: Boom or Bust?”  
 Harvard Business School Centennial Celebration, February 2010, “Private Equity at the Crossroads.”  
 Harvard Business School Global Alumni Venture Capital Conference, May 2012, “New Venture Capital Models”  
 Harvard Business School Global Alumni Venture Capital Conference, October 2014, “Lessons from the Trenches.”

Hambrecht and Quist, Post-Venture Forum, March 1999, "Venture and Post-Venture Opportunities: Insights from Research."

Iceland Pension Conference, May 2018, "The Opportunity in Venture Capital."

Institutional Limited Partner's Association, September 1997, "Risk and Return in Private Equity."

Institutional Limited Partner's Association, April 2002, "New Tools for Assessing Private Equity Valuation and Asset Allocation."

International Business Forum, June 1999, "Venture Capitalists and the Public Markets." Investors' Press Alpha Roundtable, October 1996, "The Future of Private Equity." Israel Business Forum, March 1994.

Israeli Venture Capital and High Technology Conference, 2002, "The Future of Venture Capital and Its Implication for Israel."

Japanese Private Equity Forum, July 1997, "Corporations and Venture Capital: Old and New Challenges."

Latin American Chamber of Commerce, February 1995, "Capital for Entrepreneurial Companies: A Look Ahead."

Massachusetts Public Pension Fund Investment Forum, October 1998, "Venture Capital: Investing in Start-up and Newly Public Firms."

National Venture Capital Association, March 2003, "The Future of Venture Capital." Nova Pharmaceuticals, September 2009, "Venture Capital after the Downturn."

OPAL Institutional Investors Conference, December 2000, "The Future of Private Equity." Rocky Mountain Venture Capital Association, March 2003, "Venture Capital: Challenges and Opportunities."

Russell Capital Private Equity Conference, March 1997, "The Pricing of Private Equity Investments: A Window on the Returns of Tomorrow."

Russell Capital Private Equity Conference, November 1998, "Advent Israel Venture Capital Program."

Salomon Smith Barney Private Equity Conference, March 2000, "The Future of Private Equity."

Salomon Smith Barney Consulting Group, March 2001, "Risk and Return in Private Equity."

Samsung Venture Capital Group, October 1997, "Corporations and Venture Capital: Old and New Challenges."

Seeking Alpha, March 2015, "What's Hot in Venture Capital Fundraising?"

Silicon Valley Bank, May 2003, "Venture Capital: Challenges and Opportunity."

SuperReturn Conference US, May 2009, "Insights from Private Equity Academic Research at the Harvard Business School."

SuperReturn Conference Europe, February 2011, "Insights from Private Equity Academic Research at the Harvard Business School."

SuperReturn Conference US, May 2013, "The Future of Private Equity."

University of Chicago Business Forum, May 1995, "The Next Ten Years in Venture Capital." (Organized and moderated panel.)

Venture Economics Venture Forum, November 1994, "The Venture Cycle." (Keynote Address.)

Venture Economics Venture Forum, November 1994, Panelist for IPO performance issues.

Venture Economics Venture Forum, November 1996, Plenary session speaker on venture capital returns.

VentureOne / Ernst and Young Venture Capital Conference, July 2002, "The Future of Venture Capital."

VentureOne / Ernst and Young Venture Capital Conference, July 2003, "The Future of European Venture Capital."

Young Presidents' Organization Conference, November 1998, "Entrepreneurial Opportunities in Crisis Situations."

Young Presidents' Organization Conference, January 2003, "The Future of Venture Capital."

Young Presidents' Organization Conference, January 2010, "New Models in Venture Capital."

Young Presidents' Organization Conference, January 2013, "Private Equity Trends."

In addition, made presentations of research findings for several institutional investors and investment managers who contributed data for the project on interactions between venture organizations and



institutional investors.

## **TEACHING**

### **University of Chicago**

Developed and taught course “Entrepreneurial Finance and Management,” a second-year MBA elective, 1993–1995.

### **Harvard Business School**

Taught “First-Year Finance,” in Required Curriculum, 1995–1997.

Taught “Entrepreneurial Finance,” in Elective Curriculum, 1997–2003.

Taught “The Entrepreneurial Manager,” in Required Curriculum, 2003–2008.

Taught “Venture Capital and Private Equity,” in Elective Curriculum, 2009–2012.

Co-developed and taught, “Private Equity Finance,” in Elective Curriculum, 2012–2017. Developed and taught, “Private Equity Field,” in Elective Curriculum, 2013.

Developed and taught, “Immersive Field Course: Israel. Startup Nation.” 2017–2018.

Course Head for “The Entrepreneurial Manager” in Required Curriculum 2005–2008.

Course Head for “The Entrepreneurial Manager” in Required Curriculum 2016–2019.

Co-developed and co-taught Ph.D. course “Empirical Topics in Corporate Finance,” 1999–2015. (with Josh Lerner.)

Co-developed and partially taught three-day executive courses on venture capital and private equity:

“Conflict and Evolution in Private Equity” (1996), “Corporate Venture Capital: The Third Wave” (1997), “The Internationalization of Private Equity” (1998), “Structuring Effective Private Equity Organizations” (1999, 2000), “Optimizing Corporate Investments” (2000), “Doing Private Equity Deals” (2001, 2003), “Private Equity in a Downturn” (2002), “Private Equity Deals” (2004),

“Private Equity and Corporate Governance” (2005), “Venture Capital and Private Equity” (2006), “Internationalization of Private Equity” (2007), “Private Equity and Venture Capital” (2008), and “Private Equity after the Downturn” (2009), “Venture Capital and Private Equity” (2010–2011). “Private Equity and Venture Capital: After the Financial Crisis” (2012), Private Equity and Venture Capital: The Future” (2013). “Private Equity and Venture Capital: At the Crossroads” (2014). “Private Equity and Venture Capital: Changing Market Power.” (2015), Private Equity and Venture Capital (2016–2018.) (all with Josh Lerner.)

Co-developed and taught “Economics of Markets,” in Elective Curriculum, 1997.

Partially taught in a variety of programs including:

General Management Program / START, August 1996.

HBS / CIEBA Pension Workshop, April 1996.

YPO Conference, February 1997, February 2003, February 2006, February 2008.

Strategic Finance for Small Business, February 1998, March 1999, March 2000.

Entrepreneur’s Toolkit, June 1997, June 1998, June 1999.

## **PROFESSIONAL SERVICE AND EXPERIENCE**

1985–1986	BAYER CHEMICAL CO. Researcher. Performed biochemical analysis on locust flight muscle metabolism.	LEVERKUSEN, GERMANY
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1997–present	Associate Editor for <i>Small Business Economics</i> .
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1997–present	Associate Editor for <i>Journal of Private Equity</i> .
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- 1997–2016 Associate Editor for *Journal of Finance*.
- 1997–present Western Finance Association Meetings Program Committee.
- 1998 Program Committee, *Journal of Financial Economics* conference on research methodologies in finance.
- 2006–2014 Associate Editor for Journal of Economic Literature.
- 2010–present Associate Editor for Journal of Economics and Management Strategy.

Referee for the Journal of Financial Economics, Journal of Finance, Journal of Political Economy, Quarterly Journal of Economics, Rand Journal of Economics, Review of Financial Studies, American Economic Review, Journal of Public Economics, Journal of Corporate Finance, Journal of Small Business Management, Economic Letter, Small Business Economics, Journal of Business Venturing, Journal of Small Business Finance, Journal of Business, Journal of Law, Economics, and Organizations, and Journal of Law and Economics.

Reviewer for reports and proposals for the National Science Foundation. Reviewer for reports and proposals for the Securities and Exchange Commission.

### **COMMUNITY SERVICE**

Board Member, Beth Israel Deaconess Hospital, (2014-present).

Board member, Friends of Harvard Track, (2014-2018).

Board Member, USA Triathlon Foundation, (2015-present)

Beth Israel Deaconess Wellness Center Advisory Board (2013-present)

Vice President, Treasurer, and Executive Board Member, Harvard Hillel (1995–2010).

Board Member, Camp Yavneh (2007–2010).

Ivy League Eikeden Committee (1997–2010)

Young Israel of Brookline, Internet Advisory Board (2000–2001).

Technion Institute of Management: Boston Advisory Board (2000).

Board Member, Anshe Shalom B’nei Israel Congregation (1993–1995).

### **CONSULTING PROJECTS**

Apax Venture Partners, 2003.

Bain Capital, 2008-2010.

Battery Venture Partners, 2001.

Bessemer Venture Partners, 1998.

Deloitte and Touche, 2003.

Department of Energy, Idaho Falls National Laboratory, 1994–1995.

Department of Energy, Savannah River National Laboratory, 1995–1997.

Department of Energy, Butte, Montana National Laboratory, 1997–1998.

E.M. Warburg, Pincus, 1997.

Ernst and Young, 2002.

GTCR Golder Rauner, 1999.

Jerusalem Venture Partners, 2001.

Kleiner Perkins, 2014.

Montana Science and Engineering, Inc., 1997.

Patricoff & Co., 1995.

Phillip’s Petroleum, 1998, 2000, 2001, 2002.



PriceWaterhouse Coopers, 2001.  
 RogersCasey Investment Advisors, 1994.  
 Salomon Smith Barney, 1999–2003.  
 TA Associates, 2015.  
 Thermo Electron Corporation, 1994–1997.  
 VentureOne, 1995.

## **BOARDS OF DIRECTORS AND ADVISORY BOARDS**

Evergreen Partners, 2005–2015.  
 Gemini Venture Capital, 2003–2015.  
 Highland Capital Consumer Fund, 2007–Present.  
 Khosla Ventures, 2009–Present.  
 Knightsbridge Investment Advisers, 1995–2012.  
 Mercanteo, 1999.  
 New Capital Partners, 2000–2001.  
 Onpoint Technology Ventures, 2003–2017.  
 OnTheFrontier.com, 2000–2001.  
 Spur Capital Partners, 2002–Present.  
 Triple Point Capital, 2003.  
 ZEFER, 1998.

## **GRANTS AND AWARDS**

National Science Foundation Grant, 1994–1997, “Financing New Business Formation.”  
 National Science Foundation Grant, 2002–2005, “Corporate Governance and Firm Performance.”  
 National Institute of Standards and Technology, Advanced Technology Program, 1996–1997, “Venture Capital and the Financing of Emerging Technologies.”  
 Newcomen Business History Paper Prize, 1994.  
 American Association of Individual Investors Award for Best Paper on Investments, at the Western Finance Association Meeting, 1998.  
 Journal of Financial Economics, Fama-DFA Price, Second Prize, 2008.  
 Journal of Finance, Smith Breeden Distinguished Paper Prize, 1998.  
 Rodney White Center for Financial Research, Best Paper Prize, 2002.  
 MBA Class of 1961 Fellow, 1997–1998.

## **ATHLETICS**

Alternate on the 1988 Olympic team in the marathon. Finished fourth in the Olympic trials. Qualified for 1984, 1988, 1992 Olympic marathon trials. Cross-Country All-American. Academic All-American. Set World Junior Record in the marathon (1983). Bronze medalist in 1985 World University Games in Japan (marathon). Qualified for two US cross-country teams and competed in the World Championships. Set Harvard Records in the 5,000 and 10,000 meters. Triathlon Age Group All-American 2007, 2009, 2010, 2013, 2014. Ranked second in the world by World Triathlon Corporation in Age Group at the Ironman 70.3 distance in 2014. Competed in ITU Age Group World Championships (2007, 2015). Competed in Ironman 70.3 World Championship (2007, 2016, 2017). Competed in Ironman World Championships in Kailua Kona (2009, 2010, 2018).

## **Paul A. Gompers**

### **Expert Depositions and Testimony for Prior Four Years**

Deposition of Paul A. Gompers in In Re Goldman Sachs Group, Inc. Securities Litigation, on behalf of The Goldman Sachs Group, Inc., United States District Court for the Southern District of New York, Case No. 1:10-cv-03461-PAC (April 30, 2015).

Deposition of Paul A. Gompers in In Re MiMedx Group, Inc. Securities Litigation, on behalf of MiMedx Group, Inc., United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action No. 1:13-cv-03074-TWT (June 3, 2015).

Deposition of Paul A. Gompers in Carpenters Pension Trust Fund of St. Louis, et al. v. Barclays PLC, et al., on behalf of Barclays PLC, United States District Court for the Southern District of New York, Case No. 1:12-cv-5329-SAS (June 18, 2015).

Testimony of Paul A. Gompers in Carpenters Pension Trust Fund of St. Louis, et al. v. Barclays PLC, et al., on behalf of Barclays PLC, United States District Court for the Southern District of New York, Case No. 1:12-cv-5329-SAS (July 15, 2015).

Deposition of Paul A. Gompers in In Re Goldman Sachs Group, Inc. Securities Litigation, on behalf of The Goldman Sachs Group, Inc., United States District Court for the Southern District of New York, Case No. 1:10-cv-03461-PAC (September 9, 2015).

Deposition of Paul A. Gompers in In Re Marriage of Martha Ehmann Conte and Jean-Pierre L. Conte, on behalf of Martha Ehmann Conte, Superior Court of the State of California, City and County of San Francisco, Case No. FDI-10-773039 (September 25, 2015).

Deposition of Paul A. Gompers in In Re Intercept Pharmaceuticals, Inc. Securities Litigation, on behalf of Intercept Pharmaceuticals, Inc., United States District Court for the Southern District of New York, Civil Action No. 1:14-cv-01123-NRB (October 2, 2015).

Deposition of Paul A. Gompers in In Re NII Holdings, Inc. Securities Litigation, on behalf of NII Holdings, Inc., United States District Court for the Eastern District of Virginia, Alexandria Division, Case No. 1:14-cv-00227-LMB-JFA (October 23, 2015).

Deposition of Paul A. Gompers in David M. Loritz, et al. v. Exide Technologies, et al., on behalf of the individual defendants, United States District Court for the Central District of California, Master File No. 2:13-cv-02607-SVW-E (November 3, 2015).

Deposition of Paul A. Gompers in Första AP-Fonden and Danske Invest Management A/S, Individually and on Behalf of All Others Similarly Situated v. St. Jude Medical, Inc., et al., on behalf of St. Jude Medical, Inc., United States District Court for the District of Minnesota, Civil No. 12-3070 (JNE/HB) (November 6, 2015).

Deposition of Paul A. Gompers in In Re Petrobras Securities Litigation, on behalf of the individual defendants, United States District Court for the Southern District of New York, Case No. 14-cv-9662 (November 11, 2015).

Testimony of Paul A. Gompers in Andrew Segal, M.D. v. Genitrix, LLC, H. Fisk Johnson, III and Stephen Rose, on behalf of the individual defendants, Commonwealth of Massachusetts Superior Court Department, Civil Action No. 09-776-G (November 18, 2015).

## **Paul A. Gompers**

### **Expert Depositions and Testimony for Prior Four Years**

- Deposition of Paul A. Gompers in In Re Montage Technology Group Limited Securities Litigation, on behalf of Montage Technology Group Limited, United States District Court for the Northern District of California, Case No. 3:14-cv-00722-SI (January 20, 2016).
- Deposition of Paul A. Gompers in In Re Symbol Technologies, Inc. Securities Litigation, on behalf of Symbol Technologies, Inc. and the individual defendants, United States District Court for the Eastern District of New York, Civil Action No. 05-CV-3923-DRH (January 27, 2016).
- Deposition of Paul A. Gompers in In Re Amgen, Inc. Securities Litigation, on behalf of Amgen, Inc., United States District Court for the Central District of California, Western Division, Case No. CV 07-2536 PSG (PLAx) (February 25, 2016).
- Deposition of Paul A. Gompers in In Re Comverge, Inc. Shareholders Litigation, on behalf of the Comverge directors, Court of Chancery of the State of Delaware, Consolidated C.A. No. 7368-VCP (March 24, 2016).
- Deposition of Paul A. Gompers in Musashi, L.L.C. and W.R. Huff Asset Management Co., L.L.C. v. Virgin Media Inc., on behalf of Musashi, L.L.C. and W.R. Huff Asset Management Co., L.L.C., Superior Court of New Jersey, Law Division: Morris County, Civil Action No. MRS-L-734-13 (June 1, 2016).
- Deposition of Paul A. Gompers in Spin Master Ltd. v. Bureau Veritas Consumer Products Services, Inc. and Eurofins Product safety Labs, Inc., on behalf of Bureau Veritas Consumer Products Services, Inc., United States District Court for the Western District of New York, Civil Action No. 08 CV 0923 (August 8, 2016).
- Arbitration Testimony of Paul A. Gompers in Todd M. Rainville v. Symmetric Capital, LLC, et al., on behalf of Symmetric Capital, LLC, et al., American Arbitration Association, Arbitration No. 01-15-003-8498 (August 2016).
- Deposition of Paul A. Gompers in Alan Willis, Individually and on Behalf of All Others Similarly Situated v. Big Lots, Inc., et al., on behalf of Big Lots, Inc. and the individual defendants, United States District Court for the Southern District of Ohio, Eastern Division, Case No. 2:12-cv-00604-MHW-NMK (August 25, 2016).
- Arbitration Testimony of Paul A. Gompers in Michael Christopher v. ArcLight Capital Holdings, LLC, et al., on behalf of Michael Christopher, Judicial Arbitration and Mediation Services, Arbitration No. 1400015869 (October 6, 2016).
- Deposition of Paul A. Gompers in ITW Global Investments Inc. v. American Industrial Partners Capital Fund IV, L.P., et al., on behalf of ITW Global Investments Inc., Superior Court of the State of Delaware in and for New Castle County, C.A. No. N14C-10-236 (JRJ) (November 3, 2016).
- Deposition of Paul A. Gompers in Keith Thomas, Richard Hayes, Herb Smith, and Oklahoma Police Pension & Retirement System v. Magnachip Semiconductor Corp., Sang Park, Tae Young Hwang, Margaret Sakai, R. Douglas Norby, Ilbok Lee, Nader Tavakoli, Randal Klein, Michel Elkins, Avenue Capital Management II, L.P., Barclays Capital Inc., Deutsche Bank Securities Inc., Citigroup Global Markets Inc., UBS Securities LLC, and Needham and Company, LLC, on behalf of Avenue Capital Management II, L.P., United States District Court for the Northern District of California, Case No. 3:14-cv-01160-JST (November 16, 2016).

## **Paul A. Gompers**

### **Expert Depositions and Testimony for Prior Four Years**

Deposition of Paul A. Gompers in Dr. Joseph F. Kasper v. AAC Holdings, Inc. et al., on behalf of AAC Holdings, Inc. and the individual defendants, United States District Court for the Middle District of Tennessee, Case No. 3:15-cv-00923 (January 23, 2017).

Deposition of Paul A. Gompers in In Re Facebook, Inc. IPO Securities and Derivative Litigation, on behalf of Facebook, Inc. and its officers and directors named in the suit, United States District Court for the Southern District of New York, MDL No. 12-2389 (March 28, 2017).

Deposition of Paul A. Gompers in Louisiana Municipal Police Employees' Retirement System, et al. v. Green Mountain Coffee Roasters, Inc. et al., on behalf of Green Mountain Coffee Roasters, Inc., United States District Court for the District of Vermont, Civil Action No. 2011-CV-00289 (August 3, 2017).

Deposition of Paul A. Gompers in Ohio Public Employees Retirement System, On Behalf of Itself and All Others Similarly Situated v. Federal Home Loan Mortgage Corporation a/k/a Freddie Mac, et al., on behalf of Federal Home Loan Mortgage Corporation, United States District Court for the Northern District of Ohio, Eastern Division, Civil Action No. 4:08-CV-00160 (September 15, 2017).

Deposition of Paul A. Gompers in Hudson Bay Master Fund Ltd. v. Patriot National, Inc. and Steven M. Mariano and CVI Investments, Inc. v. Patriot National, Inc., on behalf of Patriot National, Inc. and Steven M. Mariano, United States District Court for the Southern District of New York, Case Nos. 16-cv-2767 (GBD) (RLE) and 16-cv-2787 (GBD) (RLE) (October 4, 2017).

Testimony of Paul A. Gompers in Musashi, L.L.C. and W.R. Huff Asset Management Co., L.L.C. v. Virgin Media Inc., on behalf of Musashi, L.L.C. and W.R. Huff Asset Management Co., L.L.C., Superior Court of New Jersey, Law Division: Morris County, Civil Action No. MRS-L-734-13 (October 18, 2017).

Deposition of Paul A. Gompers in Winson Tang v. Lindsay Rosenwald, Michael Weiss, Opus Point Partners, LLC, Mustang Bio, Inc. (aka Mustang Therapeutics, Inc.), City of Hope, and Fortress Biotech, Inc. (f/k/a Coronado Biosciences, Inc.), on behalf of Opus Point Partners, LLC, Mustang Therapeutics, Inc., Fortress Biotech, Inc., Lindsay Rosenwald, and Michael Weiss, Superior Court of the State of California, County of Los Angeles, Case No. BC 607346 (October 23, 2017).

Deposition of Paul A. Gompers in EWC Holdings, Inc. v. Princeton Ventures II, LLC and Brazos/EWC, LLC, on behalf of EWC Holdings, Inc., Court of Chancery of the State of Delaware, C.A. No. 12519-VCL (November 7, 2017).

Deposition of Paul A. Gompers in Securities and Exchange Commission v. AVEO Pharmaceuticals, Inc., Tuan Ha-Ngoc, David Johnston, and William Slichenmeyer, on behalf of the individual defendants, United States District Court for the District of Massachusetts, Case No. 1:16-cv-10607-NMG (December 13, 2017).

Deposition of Paul A. Gompers in Ralph S. Janvey, In His Capacity as Court-Appointed Receiver for the Stanford Receivership Estate, and the Official Stanford Investors Committee v. Proskauer Rose, LLP, Chadbourne & Parke, LLP, and Thomas V. Sjoblom, on behalf of Proskauer Rose, LLP and Thomas V. Sjoblom, United States District Court for the Northern District of Texas, Dallas Division, Civil Action No. 3:13-cv-00477-N (January 22, 2018).

## **Paul A. Gompers**

### **Expert Depositions and Testimony for Prior Four Years**

Arbitration Testimony of Paul A. Gompers in Credit Agricole Corporate and Investment Bank (f/k/a Calyon Bank New York Branch), et al. v. Black Diamond Capital Management LLC, et al., on behalf of Black Diamond Capital Management LLC, BDC Finance LLC, and Black Diamond CLO 2006-1, American Arbitration Association, Arbitration No. 01-17-0007-1196 (February 6, 2018).

Deposition of Paul A. Gompers in Michael J. Angley, Individually and on Behalf of All Others Similarly Situated v. UTi Worldwide Inc., et al., on behalf of UTi Worldwide Inc. and the individual defendants, United States District Court for the Central District of California, Western Division, Case No. 2:14-cv-02066-CBM-E (February 27, 2018).

Deposition of Paul A. Gompers in Gary Koopmann, Timothy Kidd, and Victor Pirnik, Individually and on Behalf of All Others Similarly Situated v. Fiat Chrysler Automobiles N.V., et al., on behalf of Fiat Chrysler Automobiles N.V., United States District Court for the Southern District of New York, Case No. 1:15-cv-07199-JMF (March 5, 2018).

Deposition of Paul A. Gompers in Kortright Capital Partners LP, et al. v. Investcorp Investment Advisers Limited, on behalf of Kortright Capital Partners LP, Matthew Taylor, and Ty Popplewell, United States District Court for the Southern District of New York, Case No. 16-cv-7619 (March 27, 2018).

Deposition of Paul A. Gompers in In Re Medtronic, Inc. Securities Litigation, on behalf of Medtronic, Inc. and the individual defendants, United States District Court for the District of Minnesota, Master File No. 0:13-cv-01686-JRT-FLN (May 10, 2018).

Deposition of Paul A. Gompers in Hsingching Hsu, Individually and on Behalf of All Others Similarly Situated v. Puma Biotechnology, Inc., et al., on behalf of Puma Biotechnology, Inc., United States District Court for the Central District of California, Southern Division, Case No. 8:15-cv-00865-AG-JCG (June 5, 2018).

Deposition of Paul A. Gompers in Akorn, Inc. v. Fresenius Kabi AG, Quercus Acquisition, Inc., and Fresenius SE & Co. KGaA, on behalf of Akorn, Inc., Court of Chancery of the State of Delaware, C.A. No. 2018-0300-JTL (June 28, 2018).

Evidentiary Hearing Testimony of Paul A. Gompers in In Re Goldman Sachs Group, Inc. Securities Litigation, on behalf of The Goldman Sachs Group, Inc., United States District Court for the Southern District of New York, Case No. 1:10-cv-03461-PAC (July 25, 2018).

Deposition of Paul A. Gompers in Gary Koopmann, Timothy Kidd, and Victor Pirnik, Individually and on Behalf of All Others Similarly Situated v. Fiat Chrysler Automobiles N.V., et al., on behalf of Fiat Chrysler Automobiles N.V., United States District Court for the Southern District of New York, Case No. 1:15-cv-07199-JMF (October 19, 2018).

Testimony of Paul A. Gompers in Securities and Exchange Commission v. AVEO Pharmaceuticals, Inc., Tuan Ha-Ngoc, David Johnston, and William Slichenmeyer, on behalf of the individual defendants, United States District Court for the District of Massachusetts, Case No. 1:16-cv-10607-NMG (November 16, 2018).

Testimony of Paul A. Gompers in Kortright Capital Partners LP, et al. v. Investcorp Investment Advisers Limited, on behalf of Kortright Capital Partners LP, Matthew Taylor, and Ty Popplewell, United States District Court for the Southern District of New York, Case No. 16-cv-7619 (December 17, 2018).

## **Paul A. Gompers**

### **Expert Depositions and Testimony for Prior Four Years**

Testimony of Paul A. Gompers in Hsingching Hsu, Individually and on Behalf of All Others Similarly Situated v. Puma Biotechnology, Inc., et al., on behalf of Puma Biotechnology, Inc., United States District Court for the Central District of California, Southern Division, Case No. 8:15-cv-00865-AG-JCG (January 24, 2019).

Deposition of Paul A. Gompers in Oaktree Principal Fund V, LP, et al. v. Warburg Pincus LLC, et al., on behalf of Warburg Pincus LLC, Warburg Pincus Private Equity X, L.P., and Sean Carney, United States District Court for the Central District of California, Western Division, Case No. 2:15-CV-08574-PSG-MRWx (February 1, 2019).

Deposition of Paul A. Gompers in Monroe County Employees' Retirement System and Roofers Local No. 149 Pension Fund, Individually and on Behalf of All Others Similarly Situated v. The Southern Company, et al., on behalf of The Southern Company, United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action No. 1:17-cv-00241-MHC (March 15, 2019).



## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
<b>Pleadings and Legal Documents</b>	
Amended Complaint for Violation of the Federal Securities Laws, <i>Roofers' Pension Fund v. Joseph Papa, et al.</i>	June 21, 2017
Court's Opinion on Defendants' Motion to Dismiss, <i>Roofers' Pension Fund v. Joseph Papa, et al.</i> , ECF. No. 114.	July 27, 2018
<i>Cammer v. Bloom</i> , 711 F. Supp. 1264, (D.N.J.).	1989
<i>Hundahl v. United Benefit Life Ins. Co.</i> , 465 F. Supp. 1349, 1369 (N.D. Tex.).	1979
<b>Expert Reports</b>	
Expert Report of Zachary Nye, Ph.D., <i>Roofers' Pension Fund v. Joseph Papa, et al.</i>	November 30, 2018
<b>Depositions</b>	
Deposition of Isaac Drucker.	March 4, 2019
Deposition of Uri Bar Tov.	March 4, 2019
Deposition of Liat Cohen-David.	March 5, 2019
Deposition of Yuval Beer Even.	March 6, 2019
Deposition of Zachary Nye, Ph.D.	April 2, 2019
<b>SEC Filings</b>	
Perrigo Form 10-K.	August 13, 2015
Perrigo Schedule 14D-9.	September 17, 2015
Perrigo Form 10-KT.	February 25, 2016
Perrigo Form 10-K.	March 1, 2018
<b>Analyst Reports</b>	
Auerbach Grayson, "Perrigo: AHEAD OF FISCAL Q4 15 RESULTS- DOWNSIDE ON MYLAN, UPSIDE ON TYSABRI?"	August 3, 2015
Auerbach Grayson, "Perrigo: After Mylan Saga, Perrigo Back in the Game Raising Recommendation to Buy, \$175 Price Target."	November 16, 2015
Auerbach Grayson, "Perrigo: IS THE PANIC JUSTIFIED? AT THIS PRICE, WE SEE MORE UPSIDE THAN DOWNSIDE."	May 2, 2016
Auerbach Grayson, "Perrigo: CONCERN THAT THE TEMPORARY IS BECOMING PERMANENT - DOWNGRADING TO MARKET PERFORM."	August 17, 2016

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Auerbach Grayson, "Perrigo: AHEAD OF FISCAL Q4 16 RESULTS-CAPITULATION TO STARBOARD SIGNALS WEAKNESS."	February 21, 2017
Bank of America Merrill Lynch, "Perrigo Company: Tidbits from PRGO presentation."	May 12, 2015
Bank of America Merrill Lynch, "Perrigo Company: Raising PO to \$218; reiterate Buy."	July 30, 2015
Bank of America Merrill Lynch, "Perrigo Company: Steady Q; reiterate Buy."	August 5, 2015
Bank of America Merrill Lynch, "Perrigo Company: My-ri-gone; a particularly good buying opportunity on PRGO."	November 13, 2015
Bank of America Merrill Lynch, "Perrigo Company: Omega miss in 4Q; lowering PO to \$183, reiterate Buy."	February 18, 2016
Bank of America Merrill Lynch, "Perrigo Company: Papa news is surprising to us; maintain Buy."	April 22, 2016
Bank of America Merrill Lynch, "Perrigo Company: Downgrading to Underperform."	April 25, 2016
Bank of America Merrill Lynch, "Perrigo Company: Potential sale presents a key risk to our thesis."	June 14, 2016
Bank of America Merrill Lynch, "Perrigo Company: Remain cautious heading into 2Q16."	August 1, 2016
Barclays, "Mylan Inc.: Moving on from PRGO."	November 13, 2015
Bernstein, "Mylan: Thoughts After 1Q15 Quarter; A Strategy Emerges?"	May 5, 2015
Bernstein, "Quick Take - Meeting with Mylan: Initial Impressions."	May 6, 2015
Bernstein, "Mylan: Thoughts After 2Q15 Quarter; A Decent Quarter, Resetting Price Target to \$60 as Standalone Company."	August 7, 2015
Bernstein, "Mylan: Is Perrigo Acquisition Smart? Will It Succeed? What is Fair Value for Stakeholder MYL? Our 2c on the Key Questions."	September 8, 2015
BRiley, "Raising 2016E EPS by \$0.05 and Price Target from \$87 to \$97."	November 11, 2016
BTIG, "Perrigo Company plc: The Best Way to Defend Against Mylan... Buy."	September 17, 2015
BTIG, "Perrigo Company plc: Tweaking 3Q EPS; Fundamentals Remain Strong; Buy."	October 20, 2015
BTIG, "Perrigo Company plc: Flonase OTC Launch a Key Product to Watch in '16; Remain Positive on the Shares; Buy."	February 2, 2016
Citi, "Alert: Maintaining Neutral Stance as TEVA Likely To Acquire AGN's Generics Business and Walk Away from MYL."	July 26, 2015
Deutsche Bank, "Perrigo: Updating model ahead of '17 outlook."	January 31, 2017
Goldman Sachs, "Perrigo Co. (PRGO): Reiterate Sell on limited visibility and cash flow constraints."	August 11, 2016



## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Goldman Sachs, “3Q pharma and generics preview – tale of two tapes.”	October 21, 2016
Goldman Sachs, “Perrigo Co. (PRGO) \$83.51: First take: 3Q beat but LT growth/profitability outlook still murky.”	November 10, 2016
Goldman Sachs, “Perrigo Co. (PRGO): Still seeking LT visibility on earnings growth / Tysabri alternatives.”	November 11, 2016
Goldman Sachs, “Perrigo Co. (PRGO): How low can PRGO go? Playbook for 2017 guidance.”	January 30, 2017
Guggenheim Securities LLC, “Perrigo Co.: PRGO - BUY - Expecting In-Line 3Q16 for Consumer Business; Generics and Omega Could Cause Some Dyspepsia.”	October 7, 2016
Jefferies LLC, “Perrigo (PRGO): PRGO Rejects MYL’s Bid; Generics Bail Out CHC Again While Guidance Looks Solid.”	April 22, 2015
Jefferies LLC, “Pharmaceuticals/Specialty: MYL’s Formal Bid for PRGO Fails to Impress; Will Teva Go Hostile?”	April 24, 2015
Jefferies LLC, “PRGO Thoroughly Rejects MYL’s Offer; 4 Key Takeaways.”	September 17, 2015
Jefferies LLC, “Perrigo (PRGO): Thoughts on MYL’s Presentation to PRGO Investors.”	October 13, 2015
Jefferies LLC, “Perrigo (PRGO): PRGO Successfully Fends Offs the MYL Tender Offer; Now Back to Business As Usual.”	November 13, 2015
Leerink Partners LLC, “Mylan, Inc.: In-line 2Q, Focus on Consolidation, PRGO or Alternative Asset.”	August 7, 2015
Raymond James & Associates, “Perrigo Company PLC: Seeking Growth, Come to Papa; Initiating at Market Perform.”	June 2, 2015
Raymond James & Associates, “Perrigo Company PLC: Shake It Up; Another Deal Further Bolsters European OTC Platform.”	July 22, 2015
Raymond James & Associates, “Perrigo Company PLC: Segment Margins Impress but Consumer Growth Still a Debby Downer.”	August 6, 2015
Raymond James & Associates, “Perrigo Company PLC: Potential MYL Deal Killer Bites the Dust as Tysabri Fails in Secondary MS.”	October 21, 2015
Raymond James & Associates, “Perrigo Company PLC: With \$10 EPS on Horizon, PRGO Moves One Step Closer to Shaking MYL Bid.”	October 23, 2015
Raymond James & Associates, “Mylan N.V.: Ding Dong the Deal is Dead – Mylan Looks Ahead Absent Perrigo.”	November 13, 2015
Raymond James & Associates, “Perrigo Company PLC: Papa Knows Best: PRGO Dodges Hostile Takeover.”	November 13, 2015

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Raymond James & Associates, “Perrigo Company PLC: Gut Check; Entocort EC Buy Buffers EPS & Relieves NT RX Margin Softness.”	November 23, 2015
Raymond James & Associates, “Perrigo Company PLC: Accrete, Repeat; Tretinoin Deal Smooths RX Margin Wrinkles.”	December 17, 2015
Raymond James & Associates, “Perrigo Company PLC: Management Continues to Pull the Rx Lever for More EPS Cha Ching.”	January 11, 2016
Raymond James & Associates, “Perrigo Company PLC: Dial It Back: Perrigo Trims ’16 Guidance After Big-Time Miss.”	February 18, 2016
Raymond James & Associates, “Perrigo Company PLC: Say It Ain’t So Joe...; Papa Sees the Power of the Dark Side?”	April 22, 2016
Raymond James & Associates, “Perrigo Company PLC: Hey Joe, Where You Goin’ With That Miss of Yours?”	April 25, 2016
Raymond James & Associates, “Perrigo Company PLC: Papa’s Got a Brand New Bag.”	April 27, 2016
Raymond James & Associates, “Perrigo Company PLC: Papaless but Not Orphaned as New Management Begins Rep Repairs.”	May 12, 2016
Raymond James & Associates, “Perrigo Company PLC: PRGO Take Out Chatter Revived Again But All We Hear Is Noise.”	June 14, 2016
Raymond James & Associates, “Perrigo Company PLC: Derm Creams Numbers Again; Growth Headwinds Remain Persistent.”	August 10, 2016
Raymond James & Associates, “Perrigo Company PLC: More Generic Softness as Perrigo Again Slashes Guidance.”	August 10, 2016
Raymond James & Associates, “Perrigo Company PLC: Activist Adds New Angle But Recovery Requires Lengthy Execution Rehab.”	September 12, 2016
Raymond James & Associates, “Perrigo Company PLC: Don’t Rock the Boat: PRGO Shows 3Q Stability but Exposure to Pricing Weakness Still a Concern.”	November 10, 2016
Raymond James & Associates, “Perrigo Company PLC: PRGO Tops Consensus; Though We Await Color on Deflation and Potential Tysabri Sale.”	November 10, 2016
Raymond James & Associates, “Perrigo Company PLC: Adjusting 2017-18 Rx Segment Assumptions to Reflect New Generics Erosion Norm.”	February 2, 2017
Raymond James & Associates, “Perrigo Company PLC: The E Street Shuffle Comes to Allegan as Board Shakeup Could Alter Rx Generics Future.”	February 7, 2017
Raymond James & Associates, “Perrigo Company PLC: Naked & Afraid; Tysabri Driven De-Levering Further Exposes Rich Valuation.”	February 28, 2017
Raymond James & Associates, “Perrigo Company PLC: Though PRGO Remains in Restatement Limbo, Guidance Framework Holding in.”	April 25, 2017

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
RBC Capital Markets, "MYL Tender for PRGO fails - where we see both stocks trading and what this means from here."	November 13, 2015
RBC Capital Markets, "Perrigo Company: Framing the PRGO debate and where we stand on the stock."	December 10, 2015
Stifel, "4Q16 An Attempt at New Estimates Post-Tysabri Divestiture."	February 27, 2017
UBS Investment Bank, "U.S. Specialty Pharmaceuticals: Not Surprised by Perrigo's Rejection."	April 24, 2015
UBS Investment Bank, "U.S. Specialty Pharmaceuticals: Perrigo Comes Out Swinging Hard."	September 17, 2015
UBS Investment Bank, "Perrigo: Time to Refocus on Fundamentals."	November 15, 2015
UBS Investment Bank, "U.S. Specialty Pharmaceuticals: Takeaways from Investor Call with EU OTC Expert."	November 7, 2016
<b>Public Press and Other Publicly Available Documents</b>	
Mylan Press Release, "Mylan Proposes To Acquire Perrigo For \$205 Per Share," available at <a href="http://newsroom.mylan.com/2015-04-08-Mylan-Proposes-To-Acquire-Perrigo-For-205-Per-Share">http://newsroom.mylan.com/2015-04-08-Mylan-Proposes-To-Acquire-Perrigo-For-205-Per-Share</a> .	April 8, 2015
Perrigo Press Release, "Perrigo Board Unanimously Rejects Unsolicited Proposal From Mylan," available at <a href="https://investor.perrigo.com/2015-04-21-Perrigo-Board-Unanimously-Rejects-Unsolicited-Proposal-From-Mylan">https://investor.perrigo.com/2015-04-21-Perrigo-Board-Unanimously-Rejects-Unsolicited-Proposal-From-Mylan</a> .	April 21, 2015
Teva Press Release, "Teva Proposes to Acquire Mylan for \$82.00 Per Share in Cash and Stock," available at <a href="https://www.tevapharm.com/news/teva_proposes_to_acquire_mylan_for_82_00_per_share_in_cash_and_stock_04_15.aspx">https://www.tevapharm.com/news/teva_proposes_to_acquire_mylan_for_82_00_per_share_in_cash_and_stock_04_15.aspx</a> .	April 21, 2015
Mylan Press Release, "Mylan To Commence Formal Offer To Acquire Perrigo For US\$60 In Cash And 2.2 Mylan Shares Per Perrigo Share," available at <a href="http://newsroom.mylan.com/2015-04-24-Mylan-To-Commence-Formal-Offer-To-Acquire-Perrigo-For-US-60-In-Cash-And-2-2-Mylan-Shares-Per-Perrigo-Share">http://newsroom.mylan.com/2015-04-24-Mylan-To-Commence-Formal-Offer-To-Acquire-Perrigo-For-US-60-In-Cash-And-2-2-Mylan-Shares-Per-Perrigo-Share</a> .	April 24, 2015
Mylan Press Release, "Mylan Raises Offer to Acquire Perrigo," available at <a href="http://newsroom.mylan.com/2015-04-29-Mylan-Raises-Offer-to-Acquire-Perrigo">http://newsroom.mylan.com/2015-04-29-Mylan-Raises-Offer-to-Acquire-Perrigo</a> .	April 29, 2015
Teva Press Release, "Teva Withdraws Proposal to Acquire Mylan," available at <a href="https://www.tevapharm.com/news/teva_withdraws_proposal_to_acquire_mylan_07_15.aspx">https://www.tevapharm.com/news/teva_withdraws_proposal_to_acquire_mylan_07_15.aspx</a> .	July 27, 2015

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Mylan Press Release, "Mylan Lowers Acceptance Condition on Perrigo Offer to Greater than 50%," available at <a href="http://newsroom.mylan.com/2015-08-13-Mylan-Lowers-Acceptance-Condition-on-Perrigo-Offer-to-Greater-than-50">http://newsroom.mylan.com/2015-08-13-Mylan-Lowers-Acceptance-Condition-on-Perrigo-Offer-to-Greater-than-50</a> .	August 13, 2015
Mylan Press Release, "Mylan Shareholders Overwhelmingly Approve Proposed Acquisition of Perrigo," available at <a href="http://newsroom.mylan.com/2015-08-28-Mylan-Shareholders-Overwhelmingly-Approve-Proposed-Acquisition-of-Perrigo">http://newsroom.mylan.com/2015-08-28-Mylan-Shareholders-Overwhelmingly-Approve-Proposed-Acquisition-of-Perrigo</a> .	August 28, 2015
"Dealpolitik: Mylan Bid Shines Spotlight on Fundamental M&A Governance Question," Dow Jones Institutional News.	September 14, 2015
Mylan Press Release, "Mylan Commences Offer to Acquire Perrigo," available at <a href="http://newsroom.mylan.com/2015-09-14-Mylan-Commences-Offer-to-Acquire-Perrigo">http://newsroom.mylan.com/2015-09-14-Mylan-Commences-Offer-to-Acquire-Perrigo</a> .	September 14, 2015
"FTC Requires Mylan to Sell Rights to Seven Generic Pharmaceuticals as a Condition of Acquiring Perrigo Company," U.S. Federal Trade Commission, available at <a href="https://www.ftc.gov/news-events/press-releases/2015/11/ftc-requires-mylan-sell-rights-seven-generic-pharmaceuticals">https://www.ftc.gov/news-events/press-releases/2015/11/ftc-requires-mylan-sell-rights-seven-generic-pharmaceuticals</a> .	November 3, 2015
"Mylan Loses Hostile Bid for Perrigo," Dow Jones Institutional News.	November 13, 2015
Perrigo Press Release, "Perrigo Shareholders Convincingly Reject Mylan's Tender Offer, Expressing Confidence in Perrigo's Long-Term Strategy," available at <a href="https://investor.perrigo.com/2015-11-13-Perrigo-Shareholders-Convincingly-Reject-Mylans-Tender-Offer-Expressing-Confidence-in-Perrigos-Long-Term-Strategy">https://investor.perrigo.com/2015-11-13-Perrigo-Shareholders-Convincingly-Reject-Mylans-Tender-Offer-Expressing-Confidence-in-Perrigos-Long-Term-Strategy</a> .	November 13, 2015
Perrigo Press Release, "Perrigo Appoints John T. Hendrickson as Chief Executive Officer, Provides Preliminary First Quarter 2016 Selected Financial Results, and Updates Full Year 2016 Guidance," available at <a href="https://investor.perrigo.com/2016-04-25-Perrigo-Appoints-John-T-Hendrickson-as-Chief-Executive-Officer-Provides-Preliminary-First-Quarter-2016-Selected-Financial-Results-and-Updates-Full-Year-2016-Guidance">https://investor.perrigo.com/2016-04-25-Perrigo-Appoints-John-T-Hendrickson-as-Chief-Executive-Officer-Provides-Preliminary-First-Quarter-2016-Selected-Financial-Results-and-Updates-Full-Year-2016-Guidance</a> .	April 25, 2016
Perrigo Press Release, "Perrigo Company plc Reports Third Quarter 2016 Financial Results," available at <a href="https://investor.perrigo.com/2016-11-10-Perrigo-Company-plc-Reports-Third-Quarter-2016-Financial-Results">https://investor.perrigo.com/2016-11-10-Perrigo-Company-plc-Reports-Third-Quarter-2016-Financial-Results</a> .	November 10, 2016
Perrigo Press Release, "Perrigo Announces Portfolio Review Developments And Intention To Restructure Branded Consumer Healthcare's Belgium Business," available at <a href="https://investor.perrigo.com/2016-12-08-Perrigo-Announces-Portfolio-Review-Developments-And-Intention-To-Restructure-Branded-Consumer-Healthcares-Belgium-Business">https://investor.perrigo.com/2016-12-08-Perrigo-Announces-Portfolio-Review-Developments-And-Intention-To-Restructure-Branded-Consumer-Healthcares-Belgium-Business</a> .	December 8, 2016

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Perrigo Press Release, “Perrigo Updates Segment Reporting Structure,” available at <a href="https://investor.perrigo.com/2017-01-10-Perrigo-Updates-Segment-Reporting-Structure">https://investor.perrigo.com/2017-01-10-Perrigo-Updates-Segment-Reporting-Structure</a> .	January 10, 2017
Perrigo Press Release, “Perrigo Announces Restatement Of Previously Issued Forms 10-K And 10-Q Financial Statements; Announces Select Preliminary Unaudited First Quarter 2017 Financial Results,” available at <a href="https://investor.perrigo.com/2017-04-25-Perrigo-Announces-Restatement-Of-Previously-Issued-Forms-10-K-And-10-Q-Financial-Statements-Announces-Select-Preliminary-Unaudited-First-Quarter-2017-Financial-Results">https://investor.perrigo.com/2017-04-25-Perrigo-Announces-Restatement-Of-Previously-Issued-Forms-10-K-And-10-Q-Financial-Statements-Announces-Select-Preliminary-Unaudited-First-Quarter-2017-Financial-Results</a> .	April 25, 2017
Perrigo Press Release, “Perrigo Discloses Investigation,” available at <a href="https://investor.perrigo.com/2017-05-02-Perrigo-Discloses-Investigation">https://investor.perrigo.com/2017-05-02-Perrigo-Discloses-Investigation</a> .	May 2, 2017
“TASE Vacation Schedule,” Tel-Aviv Stock Exchange, available at <a href="https://info.tase.co.il/Eng/about_tase/corporate/Pages/vacation_schedule.aspx">https://info.tase.co.il/Eng/about_tase/corporate/Pages/vacation_schedule.aspx</a> .	2014–2017
“About Us – A Leading Global Over-the-Counter Pharmaceutical Company,” Perrigo, available at <a href="https://www.perrigo.com/about/about-perrigo.aspx">https://www.perrigo.com/about/about-perrigo.aspx</a> .	
“Consumer Healthcare Americas – Delivering High-Quality Store Brand OTC Products on the Retail Shelf,” Perrigo, available at <a href="https://www.perrigo.com/business/healthcare.aspx">https://www.perrigo.com/business/healthcare.aspx</a> .	
“Fact Sheet,” Omega Pharma, available at <a href="https://www.omega-pharma.com/en/fact_sheet_en">https://www.omega-pharma.com/en/fact_sheet_en</a> .	
“Market Makers FAQ: How is a Market Maker Appointed?” The Tel Aviv Stock Exchange, available at <a href="https://info.tase.co.il/eng/trading/trading_method/pages/trading_market_makers.aspx">https://info.tase.co.il/eng/trading/trading_method/pages/trading_market_makers.aspx</a> .	
“Our Company,” Omega Pharma, available at <a href="https://www.omega-pharma.com/en/our_company_en">https://www.omega-pharma.com/en/our_company_en</a> .	
“TASE Trading Schedule,” Tel-Aviv Stock Exchange, available at <a href="https://info.tase.co.il/Eng/trading/trading_schedule/Pages/trading_schedule.aspx">https://info.tase.co.il/Eng/trading/trading_schedule/Pages/trading_schedule.aspx</a> .	
<b>Academic Literature and Books</b>	
Ball, Ray, and Philip Brown, “An Empirical Evaluation of Accounting Income Numbers,” <i>Journal of Accounting Research</i> 6, no. 2: 159–178.	1968
Dodd, Peter, “Merger Proposals, Management Discretion and Stockholder Wealth,” <i>Journal of Financial Economics</i> 8: 105-137.	1980

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Asquith, Paul, “Merger Bids, Uncertainty, and Stockholder Returns,” <i>Journal of Financial Economics</i> 11: 51-83.	1983
Bradley, Michael, Anand Desai, and E. Han Kim, “The Rationale Behind Interfirm Tender Offers: Information or Synergy?” <i>Journal of Financial Economics</i> 11: 183-206.	1983
Brown, Keith, and Michael Raymond, “Risk Arbitrage and the Prediction of Successful Corporate Takeovers,” <i>Financial Management</i> : 54–63.	1986
Samuelson, William, and Leonard Rosenthal, “Price Movements as Indicators of Tender Offer Success,” <i>Journal of Finance</i> 41, no. 2: 481-499.	1986
Hirshleifer, David, and Sheridan Titman, “Share Tendering Strategies and the Success of Hostile Takeover Bids,” <i>Journal of Political Economy</i> 98, no. 2: 295-324.	1990
Fama, Eugene, “Efficient Capital Markets: II,” <i>Journal of Finance</i> 46, no. 5: 1575–1617.	1991
Greene, Jason T., and Susan G. Watts, “Price Discovery on the NYSE and the NASDAQ: The Case of Overnight and Daytime News Releases,” <i>Financial Management</i> 25, no. 1: 19–42.	1996
Campbell, John Y., Andrew W. Lo, and A. Craig MacKinlay, <i>The Econometrics of Financial Markets</i> , (New Jersey, Princeton University Press): 150–152.	1997
Busse, Jeffrey A., and T. Clifton Green, “Market Efficiency in Real Time,” <i>Journal of Financial Economics</i> 65: 415–437.	2002
Barberis, Nicholas, and Richard Thaler, “A Survey of Behavioral Finance,” <i>Handbook of the Economics of Finance</i> : 1053-1121.	2003
Brooks, Raymond M., Ajay Patel, and Tie Su, “How the Equity Market Responds to Unanticipated Events,” <i>Journal of Business</i> 76, no. 1: 109–133.	2003
Pascual, Roberto, Bartolomé Pascual-Fuster, and Francisco Climent, “Cross-listing, price discovery and the informativeness of the trading process,” <i>Journal of Financial Markets</i> 9: 144–161.	2006
Menkveld, Albert J., Siem Jan Koopman, and André Lucas, “Modeling Around-the-Clock Price Discovery for Cross-Listed Stocks Using State Space Methods,” <i>Journal of Business &amp; Economic Statistics</i> 25, no. 2: 213-225.	2007
Moulton, Pamela C., and Li Wei, “A tale of two time zones: The impact of substitutes on cross-listed stock liquidity,” <i>Journal of Financial Markets</i> 12: 570–591.	2009

## Documents Relied Upon Expert Report of Paul Gompers<sup>[1]</sup>

Title	Date
Gagnon, Louis, and G. Andrew Karolyi, “Multi-market trading and arbitrage,” <i>Journal of Financial Economics</i> 97: 53–80.	2010
Allen, Mark A., Robert E. Hall, and Victoria A. Lazear, “Reference Guide on the Estimation of Economic Damages,” <i>Reference Manual on Scientific Evidence</i> 3: 425-502.	2011
Halling, Michael, Pamela C. Moulton, and Marios Panayides, “Volume Dynamics and Multimarket Trading,” <i>Journal of Financial and Quantitative Analysis</i> 48, no. 2: 489–518.	2013
<b>Data &amp; Other Sources</b>	
Factiva	
Refinitiv	
S&P CapitalIQ	
SEC Edgar	
Thomson Reuters	
Tick Data	

Note: In addition to the above, I relied upon all documents cited in my report, exhibits, and appendices to form my opinions.

# Perrigo Co., plc

## Comparison of Dr. Nye's U.S. Market and TASE Market Event Study Results Dates With Inconsistent Statistical Significance of Company-Specific Returns

Date	Perrigo Daily Return		U.S. Market		TASE Market	
	U.S. Market	TASE Market	Company-Specific Return	P-Value	Company-Specific Return	P-Value
6/16/2015	4.34%	2.27%	3.76% **	0.036	1.82%	0.391
7/27/2015	3.81%	2.01%	3.91% **	0.023	3.95% *	0.056
8/10/2015	1.99%	4.61%	1.01%	0.557	5.02% **	0.016
8/12/2015	-3.50%	-1.87%	-3.66% **	0.035	-0.56%	0.788
9/29/2015	1.53%	-8.33%	0.85%	0.623	-6.72% **	0.001
10/21/2015	-4.53%	-4.09%	-3.72% **	0.032	-2.16%	0.309
11/16/2015	1.43%	-7.09%	0.36%	0.840	-6.28% **	0.004
11/23/2015	-4.21%	0.49%	-3.62% **	0.043	0.34%	0.879
2/8/2016	-4.21%	-4.86%	-3.67% **	0.040	-2.03%	0.360
3/14/2016	3.04%	3.65%	3.56% **	0.048	3.18%	0.152
4/26/2016	0.15%	-18.96%	0.44%	0.807	-19.02% **	0.000
6/14/2016	9.16%	0.75%	8.88% **	0.000	1.54%	0.486
6/15/2016	-9.19%	4.90%	-8.74% **	0.000	4.29% *	0.054
6/16/2016	0.36%	-5.76%	0.07%	0.971	-4.65% **	0.037
9/12/2016	7.35%	1.68%	6.08% **	0.001	3.22%	0.147
10/10/2016	1.96%	-3.71%	1.77%	0.324	-4.51% **	0.043
11/8/2016	-4.00%	-3.13%	-4.30% **	0.017	-3.63%	0.102
11/14/2016	2.55%	3.12%	3.15% *	0.080	4.40% **	0.048
5/3/2017	-5.09%	-0.88%	-4.89% **	0.007	-0.78%	0.723

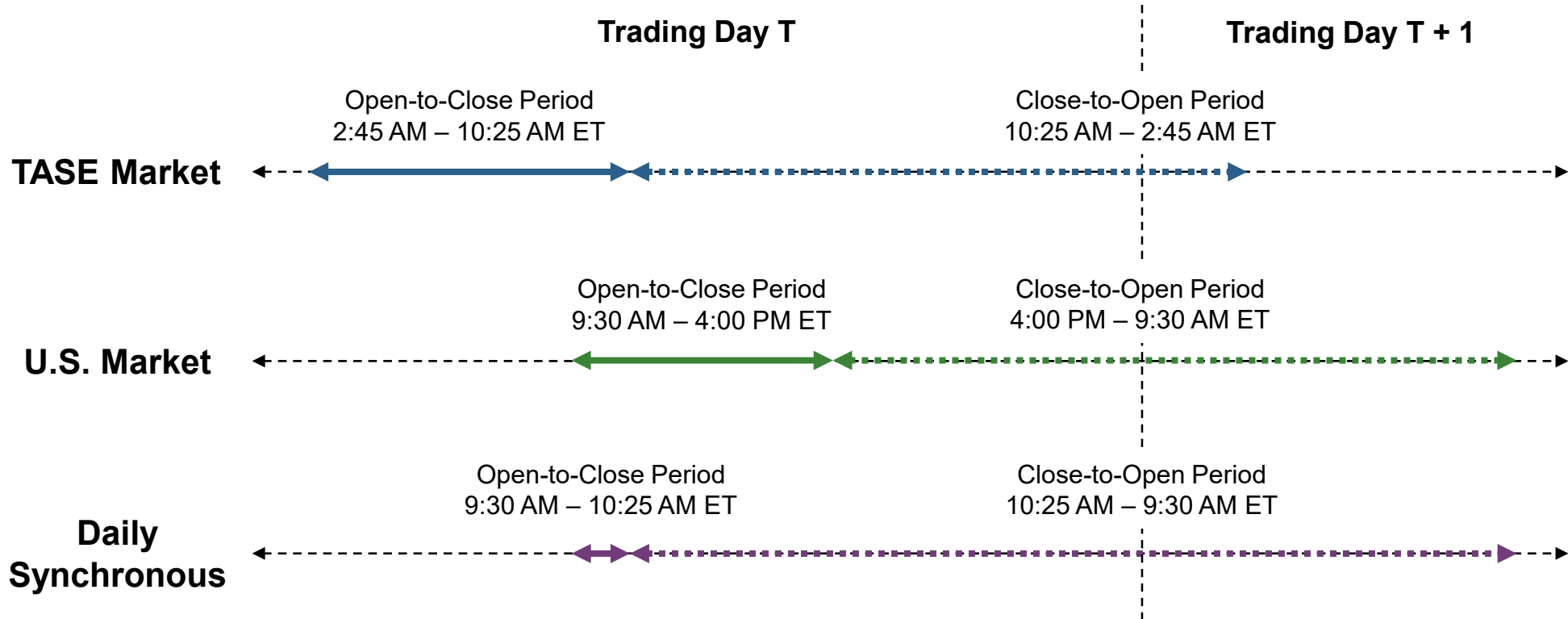
Source: Expert Report of Zachary Nye, Ph.D. Backup

Note: \*\* indicates significance at the 95% confidence level, and \* indicates significance at the 90% confidence level. P-values are calculated using Dr. Nye's regression output.



# Perrigo Co., plc

## Typical U.S. Market and TASE Market Trading Hours



Source: Public Information on the U.S. Market Trading Schedule; Public Information on the TASE Market Trading Schedule

Note:

[1] On Sundays, the TASE market typically closes at 4:25 PM local time. On all other trading days, such as the example above, the TASE market typically closes at 5:25 PM local time.

[2] Times shown are of typical TASE market trading hours, with exceptions for dates impacted by daylight savings time or holidays.

## **EXCERPTS FROM DEPOSITION OF DR. ZACHARY NYE**

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF NEW JERSEY

3 -----x  
4 ROOFERS' PENSION FUND, on behalf of itself and  
all others similarly situated,

5 Plaintiffs,

6 -vs.-

7 JOSEPH PAPA and PERRIGO CO., PLLC

8 Defendants.  
9 -----x

10 One New York Plaza  
New York, New York

11 April 2, 2019  
12 10:01 a.m.

13  
14 Videotape Deposition of ZACHARY NYE, Ph.D.,  
15 taken by Defendants, before Jeffrey Benz, a  
16 Certified Realtime Reporter, Registered Merit  
17 Reporter and Notary Public within and for the  
18 State of New York.

19  
20  
21  
22  
23 ELLEN GRAUER COURT REPORTING CO., LLC  
24 126 East 56th Street, Fifth Floor  
New York, New York 10022  
25 212-750-6434  
REF: 264885

1 NYE

2 Q. So 4B measures the weekly turnover  
3 volume for the Tel Aviv Stock Exchange, right,  
4 the combined U.S. and -- Tel Aviv Stock Exchange  
5 line. And is there a separate analysis for just  
6 the TASE?

7 A. No.

8 Q. Okay. And if we look at your footnote  
9 and the table, combined, isn't it reasonable to  
10 conclude that the volume on the TASE is  
11 approximately 0.4 percent?

12 A. No, I don't think that's the way to,  
13 you know, extrapolate or separate, disentangle  
14 the two.

15 I think it's -- one of the big  
16 problems with this analysis is that it's totally  
17 cross-listed. So it's not like a situation  
18 where you have -- like ADS is American  
19 Depository Shares, have a distinct float in the  
20 U.S. That's -- you know, as opposed to its  
21 shares outstanding in the foreign country in  
22 itself.

23 So you have like the denominator is  
24 clearly observable in the U.S. and in the  
25 foreign markets. Here in -- more and more you

1 NYE

2 see that there's just one big pile of shares  
3 that are trading across international markets.

4 And so I think the spirit of this  
5 analysis is that you're trying to see of the  
6 shares that are trading in that, you know,  
7 foreign domicile or in the U.S., what is the  
8 turnover? How -- how quickly are they trading?  
9 Is it 2 percent of weekly volume or is it less?

10 So the point here is when they're  
11 combined, which is, you know, apples to apples,  
12 you've got all of the share volume and you've  
13 got all of the shares outstanding. It's  
14 7 percent weekly turnover, which is well in  
15 excess of the 2 percent threshold laid out by  
16 Cammer.

17 Q. Right.

18 And if you -- you're saying that it's  
19 not correct to take the 7 percent figure from  
20 your footnote, subtract the 6.6 percent figure  
21 from your table to arrive at a 0.4 percent  
22 figure for the TASE trading volume?

23 A. I don't think that's reflective of the  
24 kind of share turnover order as a percentage of  
25 the pool of shares that are trading in Israel.

1 NYE

2 Because it's not going to be the entire float,  
3 which is what is -- these calculations are based  
4 on.

5 I think there's more analysis.  
6 There's another step in there that needs to be  
7 analyzed before you can say what the weekly  
8 turnover of the TASE shares are.

9 Q. And that information is not in your  
10 report?

11 A. No, it's not.

12 Q. And is there a reason why you didn't  
13 include that in your report?

14 A. Well, mostly because the price parity  
15 between these stocks, which you see -- I see, in  
16 all those cross stocks, they line up identically  
17 within cents of each other when you adjust for  
18 currency effects and timing effects.

19 And what that implies, as I state in  
20 my report, is that they're equally efficient by  
21 definition. The prices are the same  
22 contemporaneously.

23 So if you've got, you know, the  
24 characteristics of efficiency in one market and  
25 you can establish that with you -- through the

1 NYE

2 Q. Correct. So only four -- four hours,  
3 for the four days when they were both  
4 simultaneously open.

5 A. Right.

6 Q. Correct. Four hours, one hour each  
7 day, I'm sorry, for the four days when they are  
8 simultaneously open. Correct?

9 A. For the most part, yes.

10 Q. Okay. So when you concluded in  
11 paragraph 58 about price parity, throughout each  
12 day, how did you evaluate price parity  
13 throughout each day when the markets, the two  
14 different markets are open at the same time for  
15 less than four hours a week or one hour per day?

16 A. Strongly suggesting that it's when  
17 they overlap, throughout the period of the day  
18 that they're simultaneously open.

19 Q. Okay.

20 So the great majority of time you did  
21 no analysis to determine whether there was price  
22 parity when one market was open and the other  
23 was closed.

24 A. Well, also, in my event study, which  
25 looks at the earnings-related dates -- and I



1 NYE

2 note that the price reactions close to close on  
3 those are very similar as well.

4 Q. But close to close occurs with the  
5 Israeli exchange during the period when they're  
6 both open. Correct?

7 During the one hour of -- sorry.

8 The close to close with respect to the  
9 Israeli exchange will occur during the one hour  
10 four days a week when the Israeli exchange is  
11 closing and the New York exchange is still open.  
12 Correct?

13 MR. SILVERMAN: Object to form.

14 You can answer.

15 A. I just can't recall whether I used the  
16 closing price for the TASE or I used the  
17 10:00 a.m. price for the TASE as the measure.

18 Q. I see.

19 How would new information get into the  
20 market price during the time period when the  
21 U.S. market is closed but the Israeli market is  
22 open?

23 A. Trading, investors wanting to profit.

24 Q. Did you perform any analysis of  
25 whether Perrigo's shares on the TASE were

1 NYE

2 change the stock price.

3 And all that really means is important  
4 information that investors care about that  
5 alters the total mix of information.

6 Q. And that's what you were using as your  
7 understanding of the word "material" when you're  
8 using it in this report?

9 A. I think so, effectively.

10 Q. Does your analysis attempt to  
11 determine the extent that announced earnings  
12 were, quote/unquote, unexpected in a positive or  
13 negative direction?

14 A. Yes.

15 That is considered in -- in this event  
16 study, yes.

17 Q. Okay.

18 And in doing this type of an analysis,  
19 would academic studies use objective measures of  
20 earnings expectations?

21 A. Yeah. Just like I did, you -- it's  
22 easy to see. You've got the consensus across  
23 the analysts covering the stock. It's reported  
24 usually by every analyst. And Bloomberg has a  
25 nice -- and other data vendors compile those

1 NYE

2 expectations as well.

3 Q. Summarizes, Bloomberg summarizes those  
4 analysts' expectations; is that a fair  
5 description?

6 A. I think I said "compile." But, yeah,  
7 summarize.

8 Q. Okay. Well, just to clarify the  
9 record, when you use the word "compile," to me  
10 it sounds like Bloomberg would be providing the  
11 text, the full text of those expectations by  
12 other analysts.

13 And when I said "summarize," it would  
14 mean that Bloomberg wouldn't necessarily provide  
15 the full text. But it might provide some type  
16 of short-form discussion of what that analyst  
17 was saying.

18 A. Well, I thought we were talking about  
19 the earnings expectations, which is a number.  
20 And Bloomberg does have a list of the earnings  
21 for the analysts that are covering the stock.

22 Q. Okay. So they just -- they're  
23 reporting the number but not any verbal analysis  
24 that accompanies the number?

25 A. No, but that's available, in my

1 NYE

2 Q. Okay.

3 So during an intraday trading, the  
4 market can misprice shares of a company? Is  
5 that your view?

6 A. I'm sorry. Say that one more time.

7 Q. Yeah. During an intra -- during  
8 intraday trading, intraday trading, the market  
9 can misprice shares of a company. Is that your  
10 view?

11 A. Sure. It can happen.

12 Q. And if an investor is purchasing  
13 during one of those intraday mispricing events,  
14 is there a way to determine what that investor  
15 should recover in damages if the price was  
16 mispriced when an investor purchased it?

17 MR. SILVERMAN: Objection. Form.

18 Go ahead.

19 A. I would have to consider it. It  
20 sounds like a complicated hypothetical.

21 Q. Okay. When you're referring to  
22 arbitrageurs in this paragraph, are you  
23 referring to arbitrage with respect to one  
24 market or across the NYSE and the TASE markets  
25 or both?

1 NYE

2 A. I -- to a certain extent, yes. I'm  
3 not sure, exactly, either one of them, whether  
4 they come back or sometimes cases evolve.

5 Q. And what's your understanding of the  
6 plaintiffs' theory of liability in this matter  
7 with respect to its 10(b) claim?

8 A. That the misstatements and/or  
9 omissions regarding whatever's still at issue  
10 inflated the price. And that proximately caused  
11 or -- the declines that occurred when the truth  
12 was allegedly revealed on the points identified  
13 in the complaint in the loss causation section  
14 and maybe a few other dates.

15 Q. Do you have an opinion as to on which  
16 dates inflation allegedly entered Perrigo's  
17 stock price?

18 A. I don't -- I haven't analyzed the  
19 damages or loss causation. So I don't have an  
20 opinion on the price inflation band at all  
21 really at this point.

22 Q. Okay.

23 A. My opinion is that in this report, is  
24 that it can be estimated using the tools we have  
25 as economists and as we've done -- I've done

1 NYE

2 numerous times in other cases.

3 Q. Do you have a view as to whether  
4 Perrigo's price was inflated on the first day of  
5 the class period?

6 A. No. Again, I don't have any -- I  
7 haven't done any analysis of loss causation or  
8 damages. So it's allegedly -- it is alleged  
9 that it was inflated on the first day of the  
10 class period, I believe it's fair to say.

11 Q. All right.

12 Let's look at paragraph 63 of your  
13 report.

14 A. Okay.

15 Q. And in particular, the first sentence,  
16 which says, "Price inflation may be measured on  
17 a class-wide basis by analyzing the change in a  
18 security's price caused by a corrective  
19 disclosure and/or the materialization of a  
20 concealed risk."

21 Okay? And there's a footnote there  
22 that I'm not referencing here.

23 How is it -- how -- do you understand  
24 how someone performing a damages analysis would  
25 measure the change in the securities price

1 NYE

2 caused by a corrective disclosure and/or the  
3 materialization of a concealed risk?

4 A. Well, the event study methodology that  
5 I've employed to analyze market efficiency is,  
6 at the very least, a starting point. It may be  
7 also if we fully capture the -- you know,  
8 measure the inflationary effect that is --  
9 effect dissipates upon the revelation of truth  
10 on the corrective dates, alleged corrective  
11 dates.

12 Sometimes, though, you got to go a  
13 little farther to refine it towards how much of  
14 that decline net of market and industry effects  
15 was due to the fraud, as opposed to other  
16 non-fraud-related, company-specific information.

17 Q. Have you been engaged to perform any  
18 of that type of study for this matter?

19 A. No, not to date.

20 Q. Okay.

21 And how would you utilize the change  
22 in the securities price to measure inflation  
23 through the class period if you were doing such  
24 a study?

25 A. I'm sorry. I didn't quite appreciate



1 NYE

2 the -- I think there was nuance there I didn't  
3 hear.

4 Q. How would you utilize the, quote,  
5 change in a security's price, closed quote, to  
6 measure inflation through the class period if  
7 you were to do such a study?

8 A. I would have to -- you know, consider  
9 and do an analysis. The first step is analyzing  
10 the price change on the corrective event dates.  
11 In many instances, it's carried back constant,  
12 because the -- there's good reasons to do so.

13 But it's case-specific. There might  
14 be a reason and -- to modify that price  
15 inflation throughout the class period.

16 Q. Do you know whether in this particular  
17 instance, for this case, it would be appropriate  
18 to use a constant inflation band?

19 A. No. I haven't performed a rigorous or  
20 thorough analysis of -- of price inflation or  
21 any analysis of price inflation. So it is  
22 beyond the scope of my current report.

23 Q. Have you done analyses -- I think  
24 you've mentioned that there could be analyses  
25 that would not be based on the constant

1 NYE

2 Do you remember that discussion before  
3 the lunch break?

4 A. I do.

5 Q. Okay. And are you familiar with the  
6 methods -- how -- what kinds of methods are used  
7 to do that task?

8 A. I think it depends. There's -- the  
9 easiest one is if you've got confounding  
10 information, to set the -- not take the drop; be  
11 conservative and don't take it.

12 Sometimes you can take it out, but  
13 sometimes you can't. But that's like the most  
14 extreme versions; you would lose the date.  
15 Otherwise, financial economists have various  
16 methods to analyze the effect of information  
17 that's even simultaneously announced.

18 One that comes to mind is -- you know,  
19 there's econometrics literature in finance that  
20 talks about, you know, average effects based  
21 on -- on characteristic models of how a firm  
22 that's of certain type might have -- might react  
23 to an earnings surprise or a revenue surprise.  
24 Or what's the effect of write-downs?

25 You know, those types of things have

1 NYE

2 defendants earlier in the class period.

3 Q. But sitting here today, you can't be  
4 sure of whether these plaintiffs are seeking to  
5 allege a materialization of concealed risk?

6 A. No, I don't have an opinion on that.

7 Q. With regard to materialization of a  
8 concealed risk, you do agree that it depends on  
9 whether the outcome of that risk was uncertain  
10 before the concealed risk was revealed?

11 MR. SILVERMAN: Objection. Form.

12 You can answer.

13 A. It depends. I mean, it's very  
14 case-specific, and I don't think there's a  
15 one-size-fits-all answer.

16 Q. Let's look at paragraph 65.

17 And at the tail end of that paragraph,  
18 you have the following language: "If, as I have  
19 been asked to assume, the standards under  
20 Israeli law for TASE purchasers is identical to  
21 that under U.S. law for U.S. purchasers, the  
22 same methodology could be applied to ascertain  
23 class-wide damages for TASE purchasers."

24 You see that language?

25 A. I do.

1 NYE

2 And I'm asking whether you've done  
3 anything leading to this report to -- any  
4 analysis to determine if TASE purchasers are  
5 situated in a way that is similar to U.S. market  
6 purchasers for purposes of this assumption that  
7 you're making.

8 MR. SILVERMAN: Objection. Form. And  
9 you've misstated the text of his paragraph.  
10 He did not opine that it was identical. He  
11 said he assumes that the standards are  
12 identical.

13 You didn't read that part.

14 MR. ANKLAM: Well, I read it earlier,  
15 but --

16 MR. SILVERMAN: Okay.

17 A. No. I'm -- I don't have any legal  
18 expertise to draw upon to make that conclusion.  
19 So I'm just assuming that that's the case. If  
20 it is, then we can use the 10(b)-style damages  
21 I've outlined above.

22 Q. In your work for this report, have you  
23 done any work to determine whether the price of  
24 Perrigo shares had the same response in Israel  
25 and in the United States to the allegation -- to

1 NYE

2 the alleged information that the plaintiffs have  
3 asserted caused the drop in the U.S.?

4 MR. SILVERMAN: Objection. Form.

5 You can answer.

6 A. Well, I mean, I think there's some  
7 overlap with the alleged corrective events in  
8 the complaint and the earnings relates as I've  
9 analyzed in my Exhibit 12 event study. And  
10 so -- I believe on -- I can't recall what those  
11 dates are, but I think they line up across the  
12 U.S., and the reactions are similar in the U.S.  
13 and Israeli markets. The price reactions.

14 Q. "Similar" is what you said, right?

15 A. Yes.

16 Q. Okay.

17 Looking at paragraph 63, back to that  
18 one.

19 A. Okay.

20 Q. You -- your paragraph then says at a  
21 later point, "An event study can be used to  
22 isolate company-specific price movement caused  
23 by the revelation of two facts related to the  
24 alleged fraud from price movement caused by  
25 other factors. Other factors can include

1 NYE

2 changes in market and industry conditions or the  
3 dissemination of material, non-fraud-related,  
4 company-specific information."

5 Do you see that text?

6 A. I do.

7 Q. Okay.

8 Did your event study that you  
9 presented with your report control for the  
10 dissemination of material, non-fraud-related,  
11 company-specific information?

12 A. No. I mean, we talked about this  
13 earlier. For market efficiency, I'm looking at  
14 all the company-specific information disclosed  
15 kind of in total and assessing the -- the impact  
16 that that information as a whole had on the  
17 stock price, but not disentangling at this stage  
18 how much was due to, you know, item 1 versus  
19 item 2.

20 Q. Okay. Is it always possible to  
21 control for non-fraud-related information using  
22 an event study model?

23 A. Yes. The event study, I think it's  
24 misdefined at least or mischaracterized as just  
25 a regression, as just, you know, a control for

1 NYE

2 market industry effects.

3 That residual, which is the  
4 company-specific impact on a given day, then you  
5 can analyze that further. And I consider that  
6 to be within the event study's framework.

7 And it's -- you do your best. You  
8 know what I mean? Sometimes you can make a -- a  
9 reasonable estimate about the various  
10 components. I've encountered situations where  
11 it's very difficult to isolate components to a  
12 drop.

13 Q. Apart from an event study, have you  
14 considered any other methodologies that might be  
15 used to calculate damages on a class-wide basis?

16 A. Well, I -- I'm considering it all.  
17 It's -- the first step is the event study here.  
18 I think this case, the ways it's alleged, is  
19 similar to many other cases that are amenable to  
20 an event study to calculate damages.

21 But all those tools that, you know, I  
22 alluded to earlier that financial economists  
23 have to assess the impact of various pieces of  
24 information still apply.

25 Q. Have you used any of these other types



1 NYE

2 of methodologies in other cases?

3 A. Yes.

4 Q. And can you provide me with an  
5 example?

6 A. Sure.

7 I did a case against Dr. Gompers, who  
8 was with Cornerstone at the time or he was  
9 working with Cornerstone, and it was against  
10 Kinross Gold. And I had to disentangle the  
11 price drop for one mine, gold mine in that case,  
12 versus the rest the company's mining operations.

13 Case settled, but I thought I did a  
14 good job.

15 Q. With respect to the analysis you  
16 performed for this case, have you done any  
17 analysis to separate damages -- separate out  
18 damages caused by an individual, alleged  
19 misstatements or omissions on each date?

20 A. I'm sorry. Are you talking about in  
21 this case or?

22 Q. Yeah, in this case. In this case.

23 A. No, I -- again, I just haven't done  
24 any loss causation or damages work on this in  
25 any rigorous way. So I haven't analyzed the

1 NYE

2 impacts of misstatements or isolated specific  
3 fraud-related components to a corrective event.

4 MR. ANKLAM: This is number 41.

5 Q. There you go.

6 (Perrigo Press Release, dated April  
7 25, 2016, was marked Perrigo Exhibit 41 for  
8 identification, as of this date.)

9 A. Okay.

10 Q. Okay. So this is a press release  
11 for -- issued by Perrigo on the 25th of April,  
12 2016.

13 And I think you reviewed this with  
14 respect to your Exhibit 12 to your report.

15 Correct?

16 A. Correct.

17 Q. Okay.

18 And the report -- the press release  
19 says that -- discloses the departure of Mr. Papa  
20 as the CEO. Correct?

21 A. Uh-huh. Yes.

22 Q. Okay. The new -- the appointment of a  
23 new CEO as well.

24 A. Yes.

25 Q. And then there's a discussion of the

1 NYE

2 Do you see that language?

3 A. Yes.

4 Q. Okay. And when you quote that, then  
5 you have further a paragraph excerpted into your  
6 paragraph as a separate quote.

7 You see that?

8 A. Yes.

9 Q. And then you have 125 as a footnote,  
10 and you cite to a decision in the Northern  
11 District of Texas.

12 A. Correct.

13 Q. Are both quotes from the same  
14 decision?

15 A. I believe so.

16 Q. Okay.

17 Okay. Were you asked by counsel to  
18 assume the general damages approach that is  
19 discussed in here, paragraph 68?

20 A. Yes. I was given the -- just like  
21 10(b), this is -- you know, my understanding,  
22 based on counsel's instructions, is that this is  
23 how 14(e) damages are calculated, given that  
24 it's a legal construct by definition.

25 Q. Did you perform any analysis to

1 NYE

2 validate the inputs you chose for your  
3 proposed -- for the proposed damage analysis?

4 A. Well, sure. I mean, it's simple. We  
5 know what the tender formula was. You know, it  
6 was \$75 and 2.3 Mylan shares. And the closing  
7 prices are -- and opening prices are readily  
8 observable using any data vendor.

9 Q. Did you make -- did you do any  
10 analysis to determine which price for the Mylan  
11 shares should be chosen? Or did you just assume  
12 in this report that a particular price would be  
13 chosen based on instruction from counsel?

14 A. No. So the -- the language here that  
15 I cite to is provided by counsel. But as far as  
16 inputs are concerned, that's based on my  
17 economic analysis. And I think that's like --  
18 no question that makes sense, the prices and the  
19 timing of the prices that I've picked just  
20 because it's -- you know, the tender didn't go  
21 through.

22 So the best estimate of what you would  
23 have gotten in terms of 2.3 Mylan shares is 2.3  
24 times the closing price, on November 12, right  
25 before the deal -- the last observed price

1 NYE

2 before the deal doesn't go through.

3 And then -- I mean, and that in itself  
4 is probably lowballing it to the extent it's not  
5 pricing in the actual certainty of the merger  
6 flowing through.

7 And then on the flip side, you've got,  
8 you know, how much -- you know, what is the  
9 value of Perrigo that -- that the 14(e) class  
10 members received? It's the stand-alone price  
11 which is measured after the tender offer fails.  
12 And that's the opening price on November 13.

13 Q. That latter part of your analysis,  
14 that stand-alone price of Perrigo is the  
15 stand-alone price after the tender offer failed  
16 the morning of the 13th in the U.S., was that an  
17 assumption given to you by counsel or was that  
18 an analysis you performed?

19 A. That's an analysis of my -- just -- to  
20 me an obvious economic input to the calculation.

21 Q. And is there a reason why you rejected  
22 using the price of Perrigo shares before the  
23 tender offer was known to have failed?

24 A. Well, sure. It's a -- baking in  
25 the -- it's not Perrigo stand-alone. It's

1 NYE

2 Perrigo with Mylan. Right?

3 It's got a -- the probability of the  
4 tender going through is embedded in the price.  
5 And it's only once that it fails, which is  
6 approximately 8:00 in the morning, I believe,  
7 that it was reported that the tender didn't go  
8 through, that Perrigo's now to not trade with  
9 any influence from the Mylan assets, you know,  
10 being held in tandem.

11 Q. Just so we're all talking on the same  
12 point, I'll agree with you that the 8:00 a.m.  
13 timeframe in the U.S. is the correct timeframe  
14 for the failure of the tender offer. Since it  
15 was closing at 1:00 p.m. Dublin time, so that's  
16 8:00 a.m. Eastern Coast time.

17 I think actually the public  
18 announcement occurred maybe half an hour later  
19 after the tender offer -- it had become obvious  
20 that the tender offer had failed. But --

21 A. But it's still before the open in U.S.  
22 market. So I'm using the opening price in U.S.  
23 markets as -- as the measuring point for the  
24 stand-alone Perrigo.

25 Q. Right. And that's based on your

1 NYE

2 analysis, not based on an assumption that the --  
3 counsel told you to assume.

4 A. Correct.

5 Q. Okay. And that day, of course,  
6 Israeli market was closed because it was a  
7 Friday.

8 A. I can't recall, but if it was, it was.

9 Q. I'll stipulate that it was Friday, the  
10 13th, so --

11 A. Ooh. Even worse.

12 Q. Okay.

13 So what led you to assume that the --  
14 or what led you to the analysis that you should  
15 use the opening price of Perrigo shares that day  
16 instead of the -- allowing the information to  
17 move through the market during the day, and look  
18 at the closing price for Perrigo shares that  
19 day?

20 A. Just because it's -- it was teed up  
21 and well reported and you could. You could use  
22 that if you want. They're both estimates. I  
23 used the opening just because it seemed like a  
24 good, clean experiment that event happened  
25 before the open; the price adjusted. So I used

1 NYE

2 the opening price.

3 Q. Are you aware of any literature that  
4 would address the question of what price to use  
5 to measure the price of the tenderee after a  
6 failed tender offer?

7 A. No, I don't think that's really  
8 studied a whole lot. There's mergers and  
9 acquisitions literature. But specific cases, I  
10 mean, I don't know of any papers that cover  
11 that. There's cross-sectional studies. But,  
12 again, that's a different animal.

13 Q. We'll do 42.

14 (Chart prepared from NYSE trading  
15 records 11/13/2015 was marked Perrigo  
16 Exhibit 42 for identification, as of this  
17 date.)

18 Q. Okay. Paragraph -- Exhibit 42 is a  
19 chart we've prepared from trading records  
20 available to the public for NYSE transactions  
21 during the day 11/13/2015 and 15-minute  
22 intervals through the end of trading that day.

23 And if you see at the top is your  
24 opening price, right?

25 A. Uh-huh.



1 NYE

2 Section 14(e) claim.

3 Q. So --

4 A. Just like the 10(b) analysis, I  
5 haven't done a thorough, rigorous damages  
6 analysis. I'm more showing this is a common  
7 calculation. This is something that's going to  
8 apply equally to all 14(e) class members.

9 If you want to use 140 or you don't  
10 like that or the judge doesn't like that, we can  
11 use 146. It's got to be one of those. Those  
12 are stand-alone prices for Perrigo, as opposed  
13 to the price that has the previous day, which is  
14 a joint price of the two potentially being  
15 merged.

16 But I think that's something that  
17 needs to be analyzed further at the merit stage.

18 Q. In general, with respect to the  
19 damages for class members in this 14(e)  
20 analysis, would that be measured by the  
21 difference between the position the investor had  
22 in the actual world and the position they would  
23 have had in the alternative but-for world  
24 without the alleged misrepresentations?

25 MR. SILVERMAN: Objection. Form.

1 NYE

2 You can answer.

3 A. That's what I'm trying to accomplish  
4 here with the -- the -- using the price, you  
5 know, as of the close on the 12th versus a  
6 price. I use the opening price on the 13th. It  
7 is effectively a -- you know, the difference  
8 between what you would have received in the  
9 but-for world versus what you received in the  
10 actual world. And that's typically the measure  
11 of damages in these types of cases.

12 And this -- I just want to point out  
13 also that this is not overlapping in any way  
14 with the 10(b) analysis. So the damages here  
15 for 14(a) is like the cream on top that was  
16 basically allegedly taken away. And then  
17 there's the price inflation embedded in the 140  
18 or 146 price on November 13 for Perrigo.

19 That's in addition, and that's the  
20 10(b) damages. So I think that's -- I just  
21 wanted to clarify that. There's no double  
22 counting here.

23 Q. Right.

24 Is it appropriate, in your view, when  
25 you're doing this but-for type of analysis, to

1 NYE

2 A. I'm not aware of any such literature.  
3 And I have not considered that question to date.  
4 I think it's outside the scope of my report.

5 Q. But your report, for purposes of  
6 determining that there is a way to calculate  
7 damages without providing that method does  
8 assume that Perrigo -- 50 percent of Perrigo's  
9 shareholders would have -- would have tendered  
10 if they had known the alleged  
11 misrepresentations. Doesn't it?

12 A. No.

13 Q. No?

14 A. No.

15 Q. And so what's the but-for world in  
16 your analysis, if it's not a but-for world of  
17 more than 50 percent tendering?

18 A. The but-for world is anybody who wants  
19 to tender gets \$75 plus 2.3 Mylan shares, and  
20 they walk away happy.

21 Q. Are you aware of any peer-reviewed  
22 methodology to determine whether any specific  
23 shareholder of Perrigo would or would not have  
24 tendered their shares, having known about the  
25 alleged misrepresentations?

1 NYE

2 A. That's -- no. That's beyond the scope  
3 of my report. These are all very nuanced damage  
4 issues that may or may not be applicable, even  
5 at a later date.

6 But certainly given the -- my  
7 engagement, which was to determine whether there  
8 was a generally commonly applied methodology for  
9 calculating 14(e) damages in this case.

10 Q. Are you aware that one of the lead  
11 plaintiffs in this case is also a plaintiff in a  
12 securities class action pending in the Southern  
13 District of New York that accuses Mylan of  
14 making false statements in its disclosures  
15 during the same 2015 time period?

16 A. I don't recall that, but wouldn't  
17 necessarily surprise me.

18 Q. In the but-for world to determine  
19 damages, would there be a way to determine  
20 whether the tender offer would have proceeded on  
21 the same terms, assuming that the alleged  
22 misstatements by Mylan were also publicly known?

23 A. Sorry. Is that -- I didn't -- please  
24 repeat the question.

25 Q. Sure. In the but-for world, we are

1 NYE

2 with respect to the columns for market return  
3 and industry residuals, during what time period  
4 during the day do you measure the S&P index  
5 returns for these -- for the TASE event study  
6 model?

7 A. There I -- I'm almost positive that  
8 these are lined up intraday at the -- the  
9 10:00 o'clock price, for all three indices. So  
10 I'm calculating contemporaneously calculated  
11 one-day returns.

12 Q. Okay.

13 So 10:00 a.m. being TASE close? Is  
14 that what you mean?

15 A. I think that's about the close. It's  
16 the -- it's the -- when both the U.S. markets  
17 are open simultaneously with the Israeli market,  
18 the TASE.

19 Q. If we're looking at Footnote 109 of  
20 your report, page 30, it says the U.S. and  
21 Israeli markets are simultaneously open  
22 9:30 a.m. to 10:30 a.m. ET when they are -- when  
23 there are -- on the four days that they're  
24 there. So this would be 10:30, then. You  
25 think?

## **EXCERPTS FROM DEPOSITION OF URI BAR TOV**

**Confidential**

1

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF NEW JERSEY

3 -----x  
4 ROOFERS' PENSION FUND, on behalf of itself and  
all others similarly situated,

5 Plaintiff,

6 -vs.-

7 JOSEPH PAPA and PERRIGO CO, PLC,

8 Defendants.  
9 -----x

10 \* \* \* C O N F I D E N T I A L \* \* \*

11  
12 New York Plaza  
New York, New York

13  
14 March 4, 2019  
1:30 p.m.

15  
16 Videotaped Deposition of URI BAR TOV,  
17 before David Henry, a Certified Court Reporter  
18 and Notary Public of the State of New York.  
19  
20  
21  
22

23 ELLEN GRAUER COURT REPORTING CO., LLC  
24 126 East 56th Street, Fifth Floor  
New York, New York 10022  
212-750-6434  
25 REF: 262310B

**Confidential**

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1 BAR TOV - CONFIDENTIAL

2 conclusions, I think that's what you were  
3 just talking about, corporate governance,  
4 is that what you mean?

5 A. Yes.

6 Q. You had a concern, or Canaf-Clal  
7 had a concern that Mylan's corporate  
8 governance was inadequate or problematic,  
9 is that fair to say?

10 A. Yes.

11 Q. And how did that affect your  
12 analysis? How did that affect Canaf Clal's  
13 analysis?

14 A. It was one of the reasons why we  
15 didn't like to accept the tender offer.

16 Q. You didn't have those concerns  
17 about Perrigo's governance at that time?

18 A. No.

19 Q. With regard to item number one  
20 under the conclusions, do you see that?

21 A. Yes.

22 Q. Okay. This is referring to the  
23 concept that the premium being offered for  
24 Perrigo by the Mylan transaction was lower  
25 than the premium paid on similar



## **EXCERPTS FROM DEPOSITION OF YUVAL BEER EVEN**

Confidential

1

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF NEW JERSEY

3 -----x  
4 ROOFERS' PENSION FUND, on behalf of  
itself and all others similarly  
situated,

5 Plaintiff,

6 vs.

7 JOSEPH PAPA and PERRIGO CO, PLC,

8 Defendants.  
9 -----x

10 \*\*\* C O N F I D E N T I A L \*\*\*

11  
12 One New York Plaza  
New York, New York

13  
14 March 6, 2019  
1:10 p.m.

15  
16 Deposition of YUVAL BEER EVEN, held at the  
17 offices of Fried Frank Harris Shriver & Jacobson,  
18 LLP, before David Henry, a Certified Court  
19 Reporter and Notary Public of the State of New  
20 York.

21  
22  
23 ELLEN GRAUER COURT REPORTING CO. LLC  
24 126 East 56th Street, Fifth Floor  
New York, New York 10022  
25 212-750-6434  
REF: 262314B

Confidential

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1                   EVEN - CONFIDENTIAL

2       for both meetings?

3           A.     I believe so, yes.

4           Q.     And it indicates that Roni was  
5       there at these meetings, correct?

6           A.     Yes.

7           Q.     You were not?

8           A.     That's right.

9           Q.     Mr. Migdal was there?

10          A.     Yes.

11          Q.     And Mr. Shoham was there?

12          A.     Yes.

13          Q.     Along with others?

14          A.     Yes.

15          Q.     Do you recall if you had any  
16       discussions with Mr. Migdali and Mr. Shoham  
17       or Roni before these meetings took place?

18          A.     We had general talks about the  
19       tender, not about this particular meeting.

20          Q.     And this meeting occurs on the  
21       12th, the day before the tender offer day,  
22       correct?

23          A.     Yes.

24          Q.     And is it fair to say that the  
25       committee ultimately concluded that Migdal

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1 EVEN - CONFIDENTIAL

2 shares should not be tendered for this  
3 tender offer?

4 A. Yes.

5 Q. And as a general matter, that if  
6 there was success by Mylan in the 50 to  
7 80 percent scenario, the company would  
8 consider again after that happened what do  
9 we do at that point?

10 A. By company meaning Migdal?

11 Q. Migdal, yes.

12 A. Yeah, I see they decided that if  
13 it would be the case, they will consider it  
14 again.

15 Q. And in the discussion before the  
16 committee about whether to tender or not,  
17 what are the reasons that were given  
18 against tendering the ultimate decision  
19 that the board -- that the committee took?

20 A. So we liked the investment in  
21 Perrigo, we didn't know well Mylan, we  
22 didn't know it had bad corporate  
23 governance. It was an offer between almost  
24 equal weighted -- almost equal valued  
25 companies which made the risk. There

Confidential

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1 EVEN - CONFIDENTIAL

2 wasn't -- it was a hostile offer, which  
3 means that the merger itself wouldn't be as  
4 easy as what Mylan thought, as what we  
5 thought. You can see that they were  
6 talking about that we wouldn't like Perrigo  
7 to be controlled by management that had bad  
8 corporate governance grade.

9 Q. That's a reference to the fact  
10 that someone had said that Mylan's  
11 corporate governance practices were not  
12 good?

13 A. Yes.

14 Q. Are those the main reasons you  
15 see in the document for why the committee  
16 decided not to tender the shares?

17 A. Yeah, you can see the whose  
18 styled offer, yeah, both of the companies  
19 are almost equal value and big value,  
20 talking about the negative grade on the  
21 corporate governance, yes. That's the  
22 major reasons that I see here.

23 Q. Now let's look at the other one  
24 which is 27. It's a single page document,  
25 two-sided.

## **EXCERPTS FROM DEPOSITION OF LIAT COHEN-DAVID**

**Confidential**

1

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF NEW JERSEY

3 -----x  
4 ROOFERS' PENSION FUND, on behalf of itself and  
all others similarly situated,

5 Plaintiffs,

6 -vs.-

7 JOSEPH PAPA and PERRIGO CO, PLLC

8 Defendants.  
9 -----x

10 \* \* \* C O N F I D E N T I A L \* \* \*

11  
12 One New York Plaza  
New York, New York

13  
14 March 5, 2019  
10:23 a.m.

15  
16 Videotape Deposition of LIAT COHEN-DAVID,  
17 taken by Defendants, before Jeffrey Benz, a  
18 Certified Realtime Reporter, Registered Merit  
19 Reporter and Notary Public within and for the  
20 State of New York.

21  
22  
23 ELLEN GRAUER COURT REPORTING CO., LLC  
24 126 East 56th Street, Fifth Floor  
New York, New York 10022  
25 212-750-6434  
REF: 262311A

**Confidential**

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1 COHEN-DAVID - CONFIDENTIAL

2 2015. Do you recall that?

3 A. Correct.

4 Q. Can you explain why Meitav is  
5 asserting in one court that Mylan is a dishonest  
6 company and asserting in our action that  
7 Mylan -- that Perrigo should not have resisted  
8 Mylan's tender offer in 2015?

9 A. Okay. Perrigo gave investors a wrong  
10 information about several issues that are  
11 specified in the amendment complaint. Regarding  
12 those information that we sought at the same  
13 time, we didn't tend the Mylan tender. That's  
14 one -- one side of Perrigo.

15 In the other end, as we claim at the  
16 same time, Mylan wasn't that honest, and also  
17 had misleading information to public. But if we  
18 look in backwards, even though Mylan had  
19 dishonest or had wrongful acts, we have better  
20 off with -- if we will tend to Mylan tender  
21 offer because Mylan offered after increasing her  
22 bid a offer of \$75 per share plus 2.3 shares of  
23 Mylan, and this sum together it's more than what  
24 Perrigo worth today.

25 So we better off -- even though Mylan



## **EXCERPTS FROM DEPOSITION OF ISAAC DRUCKER**

**Confidential**

1

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF NEW JERSEY

3 -----x  
4 ROOFERS' PENSION FUND, on behalf of itself and  
all others similarly situated,

5 Plaintiffs,

6 -vs.-

7 JOSEPH PAPA and PERRIGO CO, PLC,

8 Defendants.  
9 -----x

10 \* \* \* C O N F I D E N T I A L \* \* \*

11  
12 One New York Plaza  
New York, New York

13  
14 March 4, 2019  
10:00 a.m.

15  
16 Deposition of ISAAC DRUCKER, taken before  
17 David Henry, a Certified Court Reporter and  
18 Notary Public of the State of New York.  
19  
20  
21  
22

23 ELLEN GRAUER COURT REPORTING CO., LLC  
24 126 East 56th Street, Fifth Floor  
New York, New York 10022  
212-750-6434  
25 REF: 262310A

**Confidential**

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1 DRUCKER - CONFIDENTIAL

2 opposed the tender offer by Mylan, correct?

3 A. Correct.

4 Q. And in Perrigo number 4, the  
5 lawsuit against Mylan, Meitav along with  
6 the other plaintiffs is saying that Mylan  
7 itself was committing securities fraud. Do  
8 you understand that?

9 A. I'm not familiar with the Mylan  
10 case as much as the Perrigo because we're  
11 not part of the Mylan. But again, I don't  
12 think there is a problem because again in  
13 the Mylan case, there are two other  
14 plaintiffs besides Meitav, and in our case  
15 Perrigo, again we are two other plaintiffs  
16 besides Meitav, so Meitav is only one  
17 plaintiff from a group in each of those  
18 cases.

19 Q. In your role as lead plaintiff,  
20 are you aware of whether the counsel, your  
21 counsel have sent subpoenas for documents  
22 to non-parties in this case?

23 A. If I am aware of it?

24 Q. Are you aware?

25 A. Send subpoenas to?

**Confidential**

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1 DRUCKER - CONFIDENTIAL

2 A. Perrigo.

3 Q. So it's the difference between  
4 the price of Perrigo shares on the day  
5 before the tender and the day after the  
6 tender, is that what you're saying?

7 A. The price -- the difference is  
8 what we have lost if we would have  
9 participated in the tender offer. The  
10 profit that we would have gained if we  
11 would have participated in the tender  
12 offer.

13 Q. And do you know how you would  
14 have measured that profit?

15 A. I'm not sure of the  
16 technicalities of this measurement. But I  
17 understand again the price in the tender  
18 was I, looking back, it was I, and if we  
19 would have known all the facts correctly  
20 and wouldn't have been misled, we might  
21 have been joining the tender offer and it  
22 would have, could have been successful.

23 Q. Do you have a general idea of  
24 whether a company's share price falls or  
25 rises after a successful tender offer, the